

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 9-6-06
Art Unit: 1752 Phone Number 301-2-1333 Serial Number: 10/522,036
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

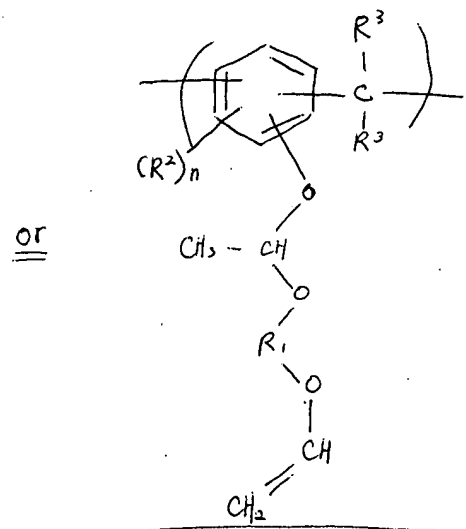
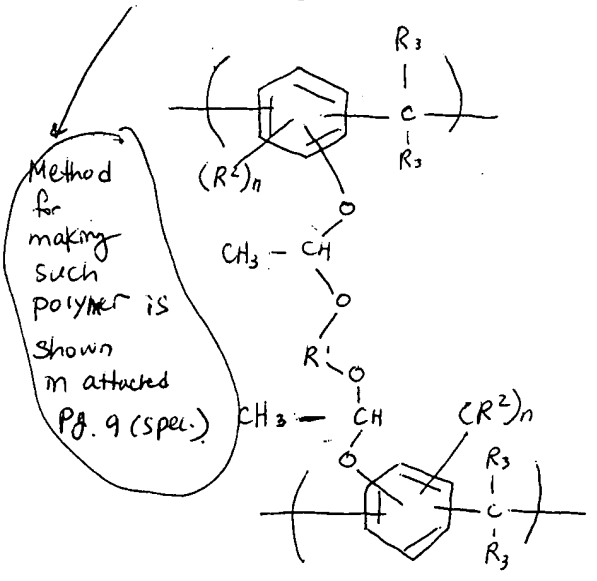
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. See Bib. SCIENTIFIC REFERENCE BR
Inventors (please provide full names): SEP
Sci & Tech Info Ctr

Earliest Priority Filing Date: _____ Pat. & T.M. Office

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for a novolak CA)
~~the~~ a Polymer having either of
the following units.



Please see Cl.#1 for definition of variables

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>am</u>	NA Sequence (#) _____	STN _____	
Searcher Phone #: <u>22504</u>	AA Sequence (#) <u>✓</u>	Dialog _____	
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____	
Date Searcher Picked Up: <u>9/10/06</u>	Bibliographic _____	Dr.Link _____	
Date Completed: <u>9/10/06</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: <u>20</u>	Patent Family _____	WWW/Internet _____	
Online Time: <u>135</u>	Other _____	Other (specify) _____	

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:58:44 ON 11 SEP 2006
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Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 10 SEP 2006 HIGHEST RN 906318-57-8
 DICTIONARY FILE UPDATES: 10 SEP 2006 HIGHEST RN 906318-57-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
 predicted properties as well as tags indicating availability of
 experimental property data in the original document. For information
 on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que l130

L54 STR

CH ₂ =CH—O—G ₂ —G ₁	Ak—Cb	Ak—Cb—Ak	Cb @12	O @13
1 2 3 4 5	@6 @7	@8 9 @10		

VAR G1=X/13

VAR G2=12/AK/6-3 7-5/7-3 6-5/8-3 10-5

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 13

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY SAT AT 7

GGCAT IS MCY SAT AT 9

GGCAT IS MCY SAT AT 12

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 7

ECOUNT IS E6 C AT 9

ECOUNT IS E6 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

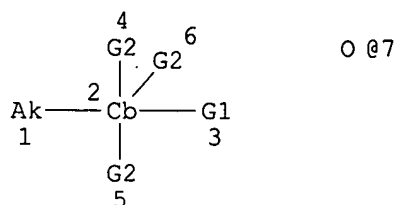
L96 SCR 2043

L98 550670 SEA FILE=REGISTRY ABB=ON PLU=ON 46.150.18/RID AND PMS/CI

L100 6449 SEA FILE=REGISTRY CSS FUL L54 AND L96

L101 1969 SEA FILE=REGISTRY ABB=ON PLU=ON L98 AND L100

L102 STR



VAR G1=7/X

VAR G2=H/AK

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 7

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 2

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 2

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

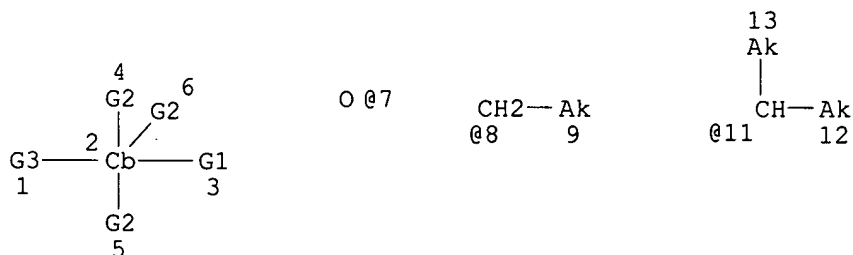
L104 131 SEA FILE=REGISTRY SUB=L101 CSS FUL L102

L105 19 SEA FILE=REGISTRY ABB=ON PLU=ON L104 AND 46.150.1/RID

L106 5 SEA FILE=REGISTRY ABB=ON PLU=ON L105 NOT C8H8O

L107 1 SEA FILE=REGISTRY ABB=ON PLU=ON L106 AND C12H20O2 NOT CH2O

L121 STR



VAR G1=7/X

VAR G2=H/AK

VAR G3=CH3/8/11

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 7

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 2

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 2

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L123 49 SEA FILE=REGISTRY SUB=L101 CSS FUL L121

L124 28 SEA FILE=REGISTRY ABB=ON PLU=ON L123 NOT (N OR S OR P OR SI)/ELS

L126 1 SEA FILE=REGISTRY ABB=ON PLU=ON 219313-95-8/BI

L127 1 SEA FILE=REGISTRY ABB=ON PLU=ON (L107 OR L126)

L128 5 SEA FILE=REGISTRY ABB=ON PLU=ON L124 AND CH2O
L129 4 SEA FILE=REGISTRY ABB=ON PLU=ON L128 NOT C15H16O2
L130 5 SEA FILE=REGISTRY ABB=ON PLU=ON (L127 OR L129)

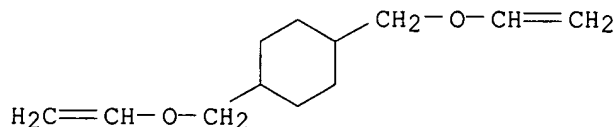
=> d ide can tot l130

L130 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
RN 808750-79-0 REGISTRY
ED Entered STN: 06 Jan 2005
CN Benzaldehyde, 2-hydroxy-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, formaldehyde, 3-methylphenol and 4-methylphenol (9CI) (CA INDEX NAME)
MF (C12 H20 O2 . C7 H8 O . C7 H8 O . C7 H6 O2 . C H2 O)x
CI PMS
PCT Phenolic resin, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 17351-75-6

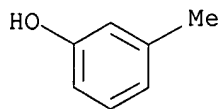
CMF C12 H20 O2



CM 2

CRN 108-39-4

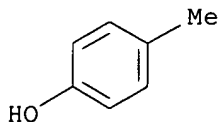
CMF C7 H8 O



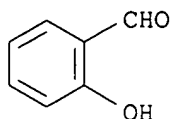
CM 3

CRN 106-44-5

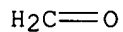
CMF C7 H8 O



CM 4

CRN 90-02-8
CMF C7 H6 O2

CM 5

CRN 50-00-0
CMF C H2 O2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:103184

REFERENCE 2: 142:65298

L130 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN

RN 808750-78-9 REGISTRY

ED Entered STN: 06 Jan 2005

CN Formaldehyde, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and 3-methylphenol (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1,4-Bis(vinyloxymethyl)cyclohexane-m-cresol-formaldehyde copolymer

MF (C12 H20 O2 . C7 H8 O . C H2 O)x

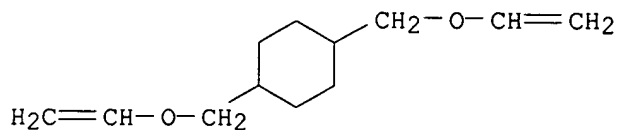
CI PMS

PCT Phenolic resin, Polyvinyl

SR CA

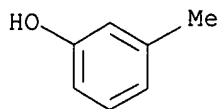
LC STN Files: CA, CAPLUS

CM 1

CRN 17351-75-6
CMF C12 H20 O2

CM 2

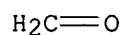
CRN 108-39-4
CMF C7 H8 O



CM 3

CRN 50-00-0

CMF C H2 O



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:65298

L130 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN

RN **219313-95-8** REGISTRY

ED Entered STN: 05 Feb 1999

CN Phenol, 2-methyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclohexane, 1,4-bis[(ethenyloxy)methyl]-, polymer with 2-methylphenol
(9CI)

OTHER NAMES:

CN 2-Cresol-1,4-cyclohexanedimethanol divinyl ether copolymer

MF (C12 H20 O2 . C7 H8 O)x

CI PMS

PCT Polyether, Polyether formed, Polyvinyl

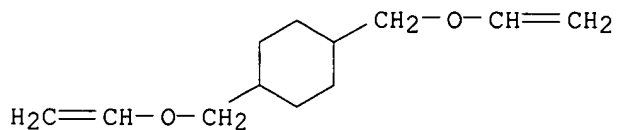
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 17351-75-6

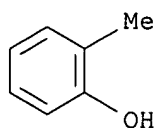
CMF C12 H20 O2



CM 2

CRN 95-48-7

CMF C7 H8 O



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:96603

L130 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN

RN 219313-92-5 REGISTRY

ED Entered STN: 05 Feb 1999

CN Formaldehyde, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, methylphenol and 2-methylphenol (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclohexane, 1,4-bis[(ethenyloxy)methyl]-, polymer with formaldehyde, methylphenol and 2-methylphenol (9CI)

CN Phenol, 2-methyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, formaldehyde and methylphenol (9CI)

CN Phenol, methyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, formaldehyde and 2-methylphenol (9CI)

OTHER NAMES:

CN Cresol-2-cresol-1,4-cyclohexanedimethanol divinyl ether-formaldehyde copolymer

MF (C12 H20 O2 . C7 H8 O . C7 H8 O . C H2 O)x

CI PMS

PCT Phenolic resin, Polyvinyl

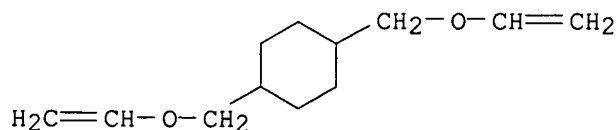
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 17351-75-6

CMF C12 H20 O2



CM 2

CRN 1319-77-3

CMF C7 H8 O

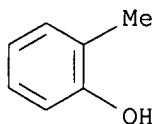
CCI IDS



D1-OH

D1-Me

CM 3

CRN 95-48-7
CMF C7 H8 O

CM 4

CRN 50-00-0
CMF C H2 O $\text{H}_2\text{C}=\text{O}$ 1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:96603

L130 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN

RN 163427-84-7 REGISTRY

ED Entered STN: 01 Jun 1995

CN Formaldehyde, polymer with 1-[2-(ethenyloxy)ethoxy]-2-methylbenzene (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-[2-(ethenyloxy)ethoxy]-2-methyl-, polymer with formaldehyde
(9CI)

MF (C11 H14 O2 . C H2 O)x

CI PMS

PCT Polyether, Polyether formed, Polyvinyl

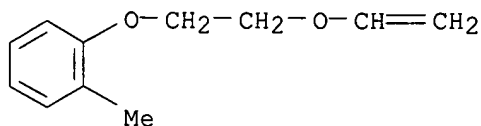
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 163427-83-6

CMF C11 H14 O2



CM 2

CRN 50-00-0

CMF C H2 O

H₂C=O

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 122:326542

=> d his l130-

(FILE 'REGISTRY' ENTERED AT 13:25:55 ON 11 SEP 2006)
 L130 5 S L127,L129

FILE 'HCAOLD' ENTERED AT 13:56:36 ON 11 SEP 2006

FILE 'USPATFULL' ENTERED AT 13:56:42 ON 11 SEP 2006

FILE 'HCAPLUS' ENTERED AT 13:56:47 ON 11 SEP 2006

FILE 'HCAOLD' ENTERED AT 13:57:14 ON 11 SEP 2006
 L131 0 S L130

FILE 'USPATFULL' ENTERED AT 13:57:16 ON 11 SEP 2006
 L132 0 S L130

FILE 'HCAPLUS' ENTERED AT 13:57:20 ON 11 SEP 2006
 L133 4 S L130

L134 2 S L133 AND (MARUYAMA? OR KURIHARA? OR MIYAGI? OR NIIKURA? OR SH

L135 2 S L133 AND (OHKA? OR KOGYO? OR TOKYO?)/PA,CS

L136 4 S L133-L135

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=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:59:01 ON 11 SEP 2006

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FILE LAST UPDATED: 10 Sep 2006 (20060910/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l136 bib abs hitstr retable tot

L136 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:33915 HCAPLUS

DN 142:103184

TI Chemically amplified positive photoresist compositions and method for forming resist patterns for system LCD with excellent heat resistance and sensitivity

IN Nakagawa; Yusuke; Hidesaka, Shinichi; Miyagi, Masaru; Harada, Hisanobu

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005010213	A2	20050113	JP 2003-171027	20030616
	KR 2004111034	A	20041231	KR 2004-43440	20040614
PRAI	JP 2003-171027	A	20030616		

OS MARPAT 142:103184

AB The compns. with acid content ≤ 50 ppm contain alkali-soluble polymers, compds. $H_2C:CHOR_1OCH:CH_2$ [$R_1 =$ (un)substituted C1-10 alkylene, R_4mQR_4m ; $R_4 =$ (un)substituted C1-10 alkylene; $m = 0, 1$], photoacid generators, and organic solvents. The method contains applying the compns. on substrates, prebaking them, selectively exposing the resist films via masks with patterns of $\leq 2.0 \mu m$ and those of $> 2.0 \mu m$, post-exposure baking them, and developing them in alkaline solns., thus giving resist patterns for IC and those for LCD units simultaneously.

IT 808750-79-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified pos. photoresists for forming IC and LCD patterns on substrates simultaneously with good heat resistance and sensitivity)

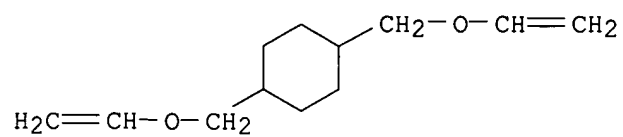
RN 808750-79-0 HCAPLUS

CN Benzaldehyde, 2-hydroxy-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, formaldehyde, 3-methylphenol and 4-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 17351-75-6

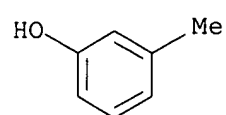
CMF C12 H20 O2



CM 2

CRN 108-39-4

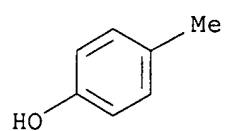
CMF C7 H8 O



CM 3

CRN 106-44-5

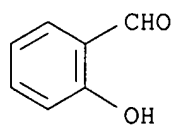
CMF C7 H8 O



CM 4

CRN 90-02-8

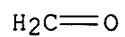
CMF C7 H6 O2



CM 5

CRN 50-00-0

CMF C H2 O



L136 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1076933 HCAPLUS

DN 142:65298

TI Chemically amplified positive photoresists for system LCD and their patterning

IN Hidesaka, Shinichi; **Kurihara, Masaki**; Nakagawa, Yusuke; Tate, ToshiakiPA **Tokyo Ohka Kogyo Co., Ltd., Japan**

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004354609	A2	20041216	JP 2003-151083	20030528
	CN 1573551	A	20050202	CN 2004-10045733	20040524
	KR 2004103320	A	20041208	KR 2004-37423	20040525
PRAI	JP 2003-151083	A	20030528		

AB The photoresists comprise (A) alkali-insol. novolaks prepared from alkali-soluble novolaks and R1(OCH:CH2)2 [R1 = C1-10 alkylene, R4mQR4m (R4 = C1-10 alkylene; m = 0, 1; Q = cyclohexylene)] and increasing solubility in aqueous

alkali solns. by acid action, (C) radiation-sensitive acid generators, and (D) organic solvents. The photoresists are applied on substrates, prebaked, exposed through masks containing $\leq 2.0\text{-}\mu\text{m}$ and $> 2.0\text{-}\mu\text{m}$ -resolution patterns, baked, and developed to form IC patterns and patterns for LCD, simultaneously.

IT **808750-78-9P**, 1,4-Bis(vinyloxymethyl)cyclohexane-m-cresol-formaldehyde copolymer **808750-79-0P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses).

(chemical amplified pos. photoresists containing vinyloxymethyl ether-bridged novolaks for system LCD)

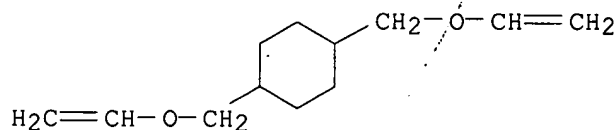
RN 808750-78-9 HCAPLUS

CN Formaldehyde, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and 3-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 17351-75-6

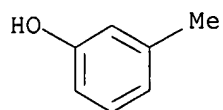
CMF C12 H20 O2



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CRN 108-39-4

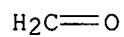
CMF C7 H8 O



CM 3

CRN 50-00-0

CMF C H2 O



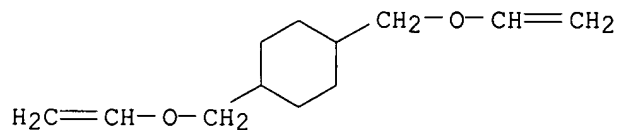
RN 808750-79-0 HCAPLUS

CN Benzaldehyde, 2-hydroxy-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane, formaldehyde, 3-methylphenol and 4-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 17351-75-6

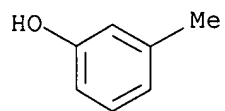
CMF C12 H20 O2



CM 2

CRN 108-39-4

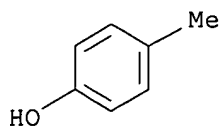
CMF C7 H8 O



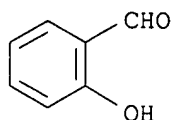
CM 3

CRN 106-44-5

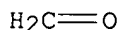
CMF C7 H8 O



CM 4

CRN 90-02-8
CMF C7 H6 O2

CM 5

CRN 50-00-0
CMF C H2 O

Negative

L136 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:795532 HCAPLUS

DN 130:96603

TI UV-curable resin compositions for electronic packaging materials and adhesives with excellent heat and moisture resistance

IN Komori, Shinji; Miyake, Sumiya

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10330463	A2	19981215	JP 1997-141823	19970530
	JP 3265466	B2	20020311		
PRAI	JP 1997-141823		19970530		

AB The compns. comprise (A) phenols or phenolic resins having electron-donating groups, (B) compds. having ≥ 2 C:C unsatd. bonds, and (C) cationic hardening initiators. Thus, a composition of PR 51767 60, 1,4-divinylbenzene 130, and SP 170 3 parts was cured with UV light to give a specimen showing Tg 163° and excellent moisture resistance.

IT **219313-92-5P**, Cresol-2-cresol-1,4-cyclohexanedimethanol divinyl ether-formaldehyde copolymer **219313-95-8P**, 2-Cresol-1,4-cyclohexanedimethanol divinyl ether copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(UV-curable resin compns. for electronic packaging materials and

adhesives with excellent heat and moisture resistance)

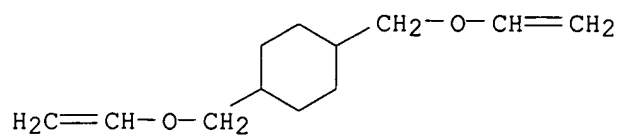
RN 219313-92-5 HCAPLUS

CN Formaldehyde, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane,
methylphenol and 2-methylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 17351-75-6

CMF C12 H20 O2



CM 2

CRN 1319-77-3

CMF C7 H8 O

CCI IDS



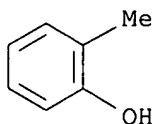
D1-OH

D1-Me

CM 3

CRN 95-48-7

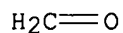
CMF C7 H8 O



CM 4

CRN 50-00-0

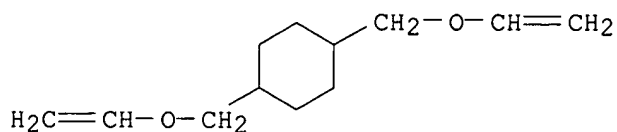
CMF C H2 O



RN 219313-95-8 HCAPLUS
 CN Phenol, 2-methyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane
 (9CI) (CA INDEX NAME)

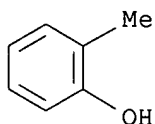
CM 1

CRN 17351-75-6
 CMF C12 H20 O2



CM 2

CRN 95-48-7
 CMF C7 H8 O



L136 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:490228 HCAPLUS

DN 122:326542

TI Negative photoresist containing vinylalkoxy monomer for color filter

IN Nozumi, Shigeo; Kitayama, Shinichiro; Nakagawa, Hiroya

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

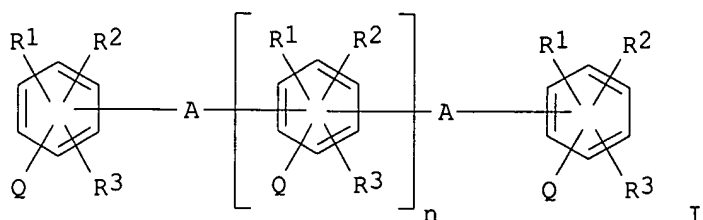
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 07028241	A2	19950131	JP 1993-171488	19930712
PRAI	JP 1993-171488		19930712		
GI					



AB The photoresist comprises (1) photopolymerizable vinyloxyalkyl monomer I
 (n = 0-20; R1, R2, R3 = H, halo, alkyl, aryl, aralkyl, alkoxy, aryloxy,
 cycloalkyl; Q = OH, OROCH:CH₂; R = C1-12 alkylene; OH/OROCH:CH₂
 10/90-90/10 mol ratio; A = C1-30 divalent hydrocarbyl), (2) a dye of
 black, red, green, and/or blue, (3) ≥1 cationic photopolymn.
 initiator, and (4) a solvent.

IT **163427-84-7**
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
 (Reactant or reagent); USES (Uses)
 (neg. photoresist containing vinylalkoxy monomers for color filter)

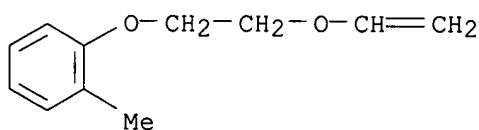
RN 163427-84-7 HCAPLUS

CN Formaldehyde, polymer with 1-[2-(ethenyloxy)ethoxy]-2-methylbenzene (9CI)
 (CA INDEX NAME)

CM 1

CRN 163427-83-6

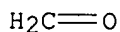
CMF C11 H14 O2



CM 2

CRN 50-00-0

CMF C H2 O



=>

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 9-6-06
Art Unit: 1752 Phone Number 702-1333 Serial Number: 10/522,036
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): RAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

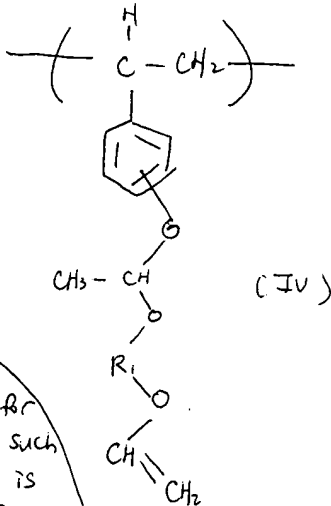
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. See Bib. SCIENTIFIC REFERENCE BR
Inventors (please provide full names): SEP Sci & Tech Inf. Cntr.

Earliest Priority Filing Date: Pat. & T.M. Office

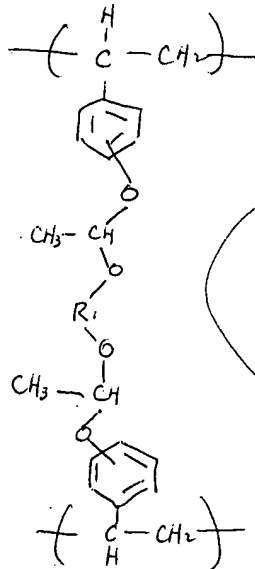
For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for a polyhydroxystyrenic resin (A')
having either of the following repeating units.



Method for making such resin is shown in attached pg. 9 (spec)

or



Please see Cl. # 23 for definition of variables

STAFF USE ONLY

Searcher: [Signature]
Searcher Phone #: 22504
Searcher Location: 912106
Date Searcher Picked Up: 912106
Date Completed: 912106
Searcher Prep & Review Time: 25
Clerical Prep Time: 180
Online Time: 180

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) ✓
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr. Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:09:03 ON 11 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 10 SEP 2006 HIGHEST RN 906318-57-8
DICTIONARY FILE UPDATES: 10 SEP 2006 HIGHEST RN 906318-57-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que 156

L29 3697 SEA FILE=REGISTRY ABB=ON PLU=ON (1073-67-2/CRN OR 115958-24-2
/CRN OR 1331-28-8/CRN OR 1335-06-4/CRN OR 2039-82-9/CRN OR
2039-85-2/CRN OR 2039-86-3/CRN OR 2039-87-4/CRN OR 2039-88-5/CR
N OR 2351-50-0/CRN OR 2628-17-3/CRN OR 27753-00-0/CRN OR
31257-96-2/CRN OR 350-51-6/CRN OR 394-46-7/CRN OR 405-99-2/CRN
OR 4840-91-9/CRN OR 4840-92-0/CRN OR 54549-32-5/CRN OR
620-18-8/CRN OR 695-84-1/CRN OR 92766-09-1/CRN) AND PMS/CI
L54 STR

CH2=CH—O—G2—G1 Ak—Cb Ak—Cb—Ak Cb @12 O @13
1 2 3 4 5 @6 @7 @8 9 @10

VAR G1=X/13

VAR G2=12/AK/6-3 7-5/7-3 6-5/8-3 10-5

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 13

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY SAT AT 7

GGCAT IS MCY SAT AT 9

GGCAT IS MCY SAT AT 12

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 7

ECOUNT IS E6 C AT 9

ECOUNT IS E6 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L56 64 SEA FILE=REGISTRY SUB=L29 CSS FUL L54

100.0% PROCESSED

160 ITERATIONS

64 ANSWERS

SEARCH TIME: 00.00.01

=> d his

(FILE 'HOME' ENTERED AT 11:56:17 ON 11 SEP 2006)

SET COST OFF

FILE 'HCAPLUS' ENTERED AT 11:56:27 ON 11 SEP 2006

L1 2 S US20050244740/PN OR (US2005-522036# OR WO2004-JP7139 OR JP200
SEL RN

FILE 'REGISTRY' ENTERED AT 11:57:22 ON 11 SEP 2006

L2 14 S E1-E14
L3 9 S L2 NOT (N OR S)/ELS
L4 7 S L3 AND NC>=2
E C8H8O/MF
L5 159 S E3 AND 46.150.18/RID
L6 130 S L5 AND 1/NR
L7 119 S L6 NOT PHENOL
L8 11 S L6 NOT L7
L9 4 S L8 NOT (D/ELS OR 14C OR ION)
E C8H7CL/MF
L10 38 S E3 AND 46.150.18/RID AND 1/NR
L11 3 S L10 AND IDS/CI
L12 2 S L11 NOT 52747-02-1
L13 36 S L10 NOT L12
L14 17 S L13 NOT (D OR T)/ELS
L15 8 S L14 AND ETHENYL NOT ION
SEL RN 4 5 6
L16 3 S E1-E3
E C8H7BR/MF
L17 37 S E3 AND 46.150.18/RID AND 1/NR
L18 2 S L17 AND IDS/CI
L19 35 S L17 NOT L18
L20 26 S L19 AND ETHENYL NOT ION
L21 14 S L20 NOT (D OR T)/ELS
SEL RN 8-10
L22 3 S E1-E3
E C8H7I/MF
L23 13 S E3 AND 46.150.18/RID AND 1/NR
L24 10 S L23 NOT ((D OR T)/ELS OR ION)
SEL RN 8-10
L25 3 S E1-E3
E C8H7F/ELS
E C8H7F/MF
L26 12 S E3 AND 46.150.18/RID AND 1/NR NOT ((D OR T)/ELS OR ION)
SEL RN 4 5 9 10 12
L27 5 S E1-E5
L28 22 S L9,L12,L16,L18,L22,L25,L27
SEL RN
L29 3697 S E6-E27/CRN AND PMS/CI
L30 209 S L29 AND 46.150.1/RID
L31 2 S L30 AND 130668-21-2/CRN
L32 STR
L33 2 S L32 SAM
L34 STR L32
L35 2 S L34 SAM
L36 STR L34

jan delaval - 11 september 2006

L37 16 S L36
 L38 STR L32
 L39 0 S L38 CSS SAM SUB=L29
 L40 2 S L38 SAM SUB=L29
 L41 207 S L30 NOT L31
 L42 203 S L41 NOT OXOCYCLOHEX?
 L43 160 S L42 NOT (N OR S OR P OR SI)/ELS
 L44 43 S L42 NOT L43
 L45 9 S L43 AND C10H16O2
 SEL RN 7
 L46 1 S E28
 L47 15 S L43 AND C16H22O2
 SEL RN 6 7 13 15
 L48 4 S E29-E32
 L49 13 S L43 AND C12H20O2
 SEL RN 2 4 9
 L50 3 S E33-E35
 L51 23 S L43 AND C18H26O2
 SEL RN 8 19 22 23
 L52 4 S E36-E39
 L53 14 S L31,L46,L48,L50,L52
 L54 STR L32
 L55 2 S L54 CSS SAM SUB=L29
 L56 64 S L54 CSS FUL SUB=L29
 SAV L56 LEE522/A
 L57 15 S L56 AND 46.150.1/RID
 L58 11 S L57 NOT L53
 L59 49 S L56 NOT L57
 SEL RN 18
 L60 1 S E40
 L61 15 S L53,L60
 SAV L61 LEE522A/A

FILE 'HCAOLD' ENTERED AT 12:58:05 ON 11 SEP 2006

L62 0 S L61

FILE 'USPATFULL' ENTERED AT 12:58:11 ON 11 SEP 2006

L63 20 S L61
 L64 17 S L63 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
 L65 2 S L63 AND (MARUYAMA? OR KURIHARA? OR MIYAGI? OR NIIKURA? OR SHI
 L66 0 S L63 AND (OHKA? OR KOGYO? OR TOKYO?)/PA,CS
 L67 15 S L64 NOT L65

FILE 'HCAPLUS' ENTERED AT 13:01:25 ON 11 SEP 2006

L68 54 S L61
 L69 2 S L68 AND (MARUYAMA? OR KURIHARA? OR MIYAGI? OR NIIKURA? OR SHI
 L70 4 S L68 AND (OHKA? OR KOGYO? OR TOKYO?)/PA,CS
 L71 48 S L68 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
 L72 4 S L69,L70
 L73 3 S L72 NOT L1
 SEL RN

FILE 'REGISTRY' ENTERED AT 13:03:10 ON 11 SEP 2006

L74 18 S E41-E58
 L75 3 S L74 AND UNSPECIFIED

FILE 'HCAPLUS' ENTERED AT 13:05:32 ON 11 SEP 2006

L76 4 S L72 AND ?PHOTORESIST?
 L77 39 S L71 AND ?PHOTORESIST?
 E PHOTORESIST/CT

L78 38555 S E6+OLD,NT
E E6+ALL
L79 3 S L72 AND L78
L80 4 S L72,L76,L79
L81 36 S L71 AND L78
L82 39 S L77,L81
L83 47 S L71 AND ?RESIST?
E RESIST/CT
L84 75069 S E49+OLD,NT OR E55+OLD,NT
L85 3 S L80 AND L84
L86 4 S L80,L85
L87 46 S L71 AND L84
L88 47 S L82,L83,L87
L89 1 S L71 NOT L88
L90 48 S L88,L89

FILE 'REGISTRY' ENTERED AT 13:09:03 ON 11 SEP 2006

=> d ide can tot l61

L61 ANSWER 1 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN
RN 819800-41-4 REGISTRY
ED Entered STN: 25 Jan 2005
CN Phenol, ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and
ethenylbenzene (9CI) (CA INDEX NAME)
MF (C12 H20 O2 . C8 H8 O . C8 H8)x
CI PMS
PCT Polystyrene, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 31257-96-2
CMF C8 H8 O
CCI IDS

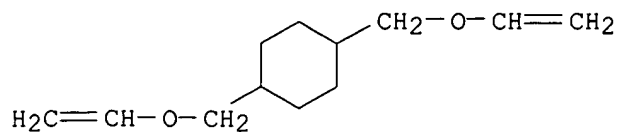


D1-OH

D1-CH=CH₂

CM 2

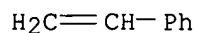
CRN 17351-75-6
CMF C12 H20 O2



CM 3

CRN 100-42-5

CMF C8 H8



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:103184

L61 ANSWER 2 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN 803688-39-3 REGISTRY

ED Entered STN: 29 Dec 2004

CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

OTHER NAMES:

CN Cyclohexanedimethanol divinyl ether-hydroxystyrene copolymer

MF (C12 H20 O2 . C8 H8 O)x

CI **PMS**

PCT Polyether, Polystyrene

SR CA

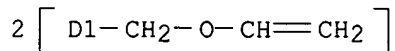
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



D1-OH

D1-CH=CH₂

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:325916

REFERENCE 2: 142:45895

L61 ANSWER 3 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 803688-38-2 REGISTRY
 ED Entered STN: 29 Dec 2004
 CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and
 ethenylbenzene (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Cyclohexanedimethanol divinyl ether-hydroxystyrene-styrene copolymer
 MF (C12 H20 O2 . C8 H8 O . C8 H8)x
 CI **PMS**
 PCT Polyether, Polystyrene
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 130668-21-2
 CMF C12 H20 O2
 CCI IDS

2 [D1-CH₂-O-CH=CH₂]

CM 2

CRN 31257-96-2

CMF C8 H8 O
CCI IDS



D1-OH

D1-CH=CH₂

CM 3

CRN 100-42-5
CMF C8 H8

H₂C=CH-Ph

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

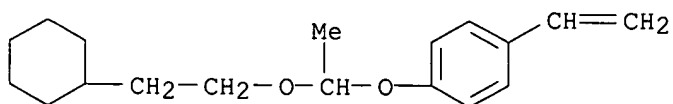
REFERENCE 1: 142:325909

REFERENCE 2: 142:45895

L61 ANSWER 4 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN
RN **754191-55-4** REGISTRY
ED Entered STN: 30 Sep 2004
CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-methoxybenzene (9CI) (CA INDEX NAME)
MF (C18 H26 O2 . C9 H10 O . C8 H8 O)x
CI PMS
PCT Polystyrene
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

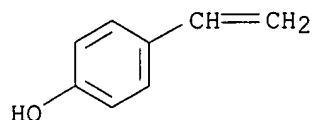
CRN 288620-12-2
CMF C18 H26 O2



CM 2

CRN 2628-17-3

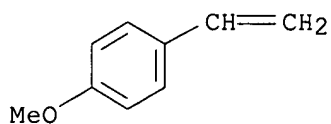
CMF C8 H8 O



CM 3

CRN 637-69-4

CMF C9 H10 O



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:45908

REFERENCE 2: 141:268545

L61 ANSWER 5 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **428821-91-4** REGISTRY

ED Entered STN: 12 Jun 2002

CN Phenol, ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane
(9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1,4-Cyclohexanedimethanol divinyl ether-vinylphenol copolymer

MF (C12 H20 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene, Polyvinyl

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



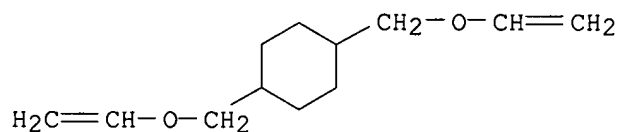
D1-OH

D1-CH=CH₂

CM 2

CRN 17351-75-6

CMF C12 H20 O2



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:409018

L61 ANSWER 6 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **383190-92-9** REGISTRY

ED Entered STN: 15 Jan 2002

CN Phenol, ethenyl-, polymer with [1-(2-cyclohexylethoxy)ethoxy]ethenylbenzen
e (9CI) (CA INDEX NAME)

MF (C18 H26 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene

SR CA

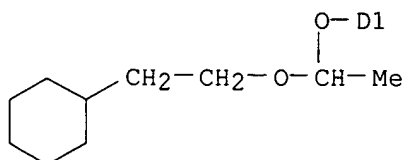
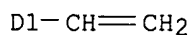
LC STN Files: CA, CAPLUS

CM 1

CRN 383190-91-8

CMF C18 H26 O2

CCI IDS

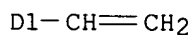
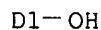


CM 2

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:61527

L61 ANSWER 7 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **362479-00-3** REGISTRY

ED Entered STN: 16 Oct 2001

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Butane, 1,4-bis(ethenyloxy)-, polymer with 4-ethenylphenol (9CI)

OTHER NAMES:

CN 1,4-Butanediol divinyl ether-p-hydroxystyrene copolymer

MF (C8 H14 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene, Polyvinyl

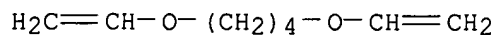
SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

CM 1

CRN 3891-33-6

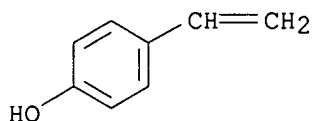
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:350570

REFERENCE 2: 135:336907

REFERENCE 3: 135:310937

REFERENCE 4: 135:264558

L61 ANSWER 8 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN 291282-96-7 REGISTRY

ED Entered STN: 27 Sep 2000

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-[1-(cyclohexyloxy)ethoxy]-4-ethenyl-, polymer with ethenylbenzene and 4-ethenylphenol (9CI)

CN Benzene, ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 4-ethenylphenol (9CI)

MF (C16 H22 O2 . C8 H8 O . C8 H8)x

CI PMS

PCT Polystyrene

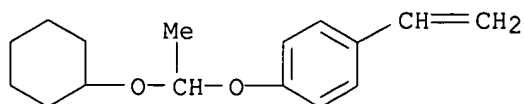
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 190434-67-4

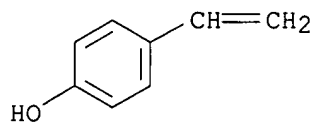
CMF C16 H22 O2



CM 2

CRN 2628-17-3

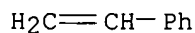
CMF C8 H8 O



CM 3

CRN 100-42-5

CMF C8 H8



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:230379

L61 ANSWER 9 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **291282-95-6** REGISTRY

ED Entered STN: 27 Sep 2000

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-(1-ethoxyethoxy)benzene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-ethenyl-4-(1-ethoxyethoxy)-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 4-ethenylphenol (9CI)

CN Benzene, 1-[1-(cyclohexyloxy)ethoxy]-4-ethenyl-, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI)

MF (C16 H22 O2 . C12 H16 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene

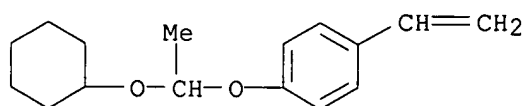
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LC STN Files: CA, CAPLUS

CM 1

CRN 190434-67-4

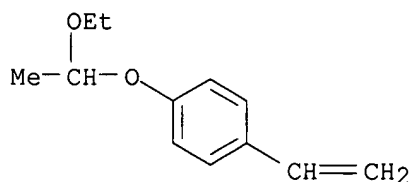
CMF C16 H22 O2



CM 2

CRN 157057-20-0

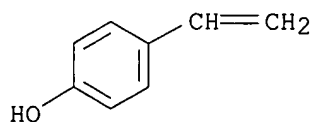
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:230379

L61 ANSWER 10 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **289706-83-8** REGISTRY

ED Entered STN: 20 Sep 2000

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenyl-, polymer with ethenylbenzene and 4-ethenylphenol (9CI)

CN Benzene, ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and 4-ethenylphenol (9CI)

MF (C18 H26 O2 . C8 H8 O . C8 H8)x

CI PMS

PCT Polystyrene

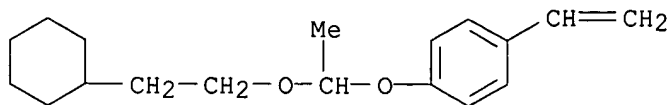
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 288620-12-2

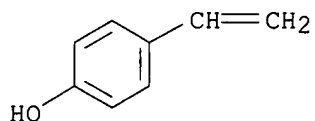
CMF C18 H26 O2



CM 2

CRN 2628-17-3

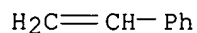
CMF C8 H8 O



CM 3

CRN 100-42-5

CMF C8 H8



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:215450

L61 ANSWER 11 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **288620-13-3** REGISTRY

ED Entered STN: 12 Sep 2000

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenyl-, polymer with 4-ethenylphenol (9CI)

MF (C18 H26 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene

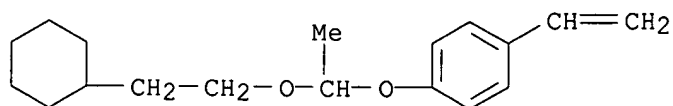
SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

CM 1

CRN 288620-12-2

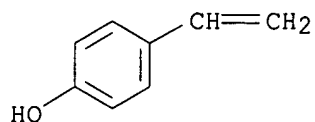
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

34 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 34 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:302021

REFERENCE 2: 144:61190

REFERENCE 3: 143:413517

REFERENCE 4: 143:315460

REFERENCE 5: 143:238687

REFERENCE 6: 143:219455

REFERENCE 7: 142:45908

REFERENCE 8: 141:386375

REFERENCE 9: 141:268545

REFERENCE 10: 141:215640

L61 ANSWER 12 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN 259655-61-3 REGISTRY

ED Entered STN: 21 Mar 2000

CN Phenol, 4-ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclohexane, 1,4-bis[(ethenyloxy)methyl]-, polymer with 4-ethenylphenol and ethoxyethene (9CI)

CN Ethene, ethoxy-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and 4-ethenylphenol (9CI)

MF (C12 H20 O2 . C8 H8 O . C4 H8 O)x

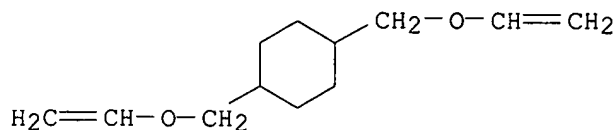
CI PMS

PCT Polystyrene, Polyvinyl

SR CA
LC STN Files: CA, CAPLUS

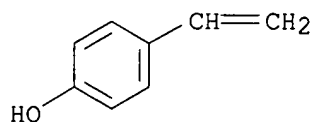
CM 1

CRN 17351-75-6
CMF C12 H20 O2



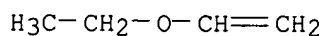
CM 2

CRN 2628-17-3
CMF C8 H8 O



CM 3

CRN 109-92-2
CMF C4 H8 O



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

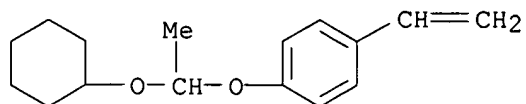
REFERENCE 1: 132:187652

L61 ANSWER 13 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN
RN **199432-81-0** REGISTRY
ED Entered STN: 07 Jan 1998
CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1-[1-(cyclohexyloxy)ethoxy]-4-ethenyl-, polymer with 4-ethenylphenol (9CI)
OTHER NAMES:
CN p-(1-Cyclohexyloxyethoxy)styrene-p-hydroxystyrene copolymer
MF (C16 H22 O2 . C8 H8 O)x
CI PMS
PCT Polystyrene
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

CM 1

CRN 190434-67-4

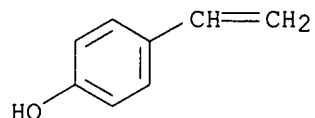
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:393268

REFERENCE 2: 136:301776

REFERENCE 3: 136:93483

REFERENCE 4: 133:230379

REFERENCE 5: 128:328771

REFERENCE 6: 128:28627

L61 ANSWER 14 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN 192314-56-0 REGISTRY

ED Entered STN: 08 Aug 1997

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-(1,1-dimethylethoxy)-4-ethenylbenzene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-(1,1-dimethylethoxy)-4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 4-ethenylphenol (9CI)

CN Benzene, 1-[1-(cyclohexyloxy)ethoxy]-4-ethenyl-, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene and 4-ethenylphenol (9CI)

MF (C16 H22 O2 . C12 H16 O . C8 H8 O)x

CI PMS

PCT Polystyrene

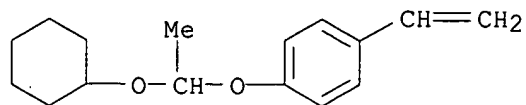
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 190434-67-4

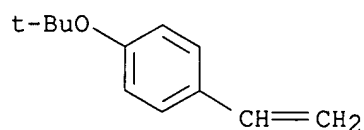
CMF C16 H22 O2



CM 2

CRN 95418-58-9

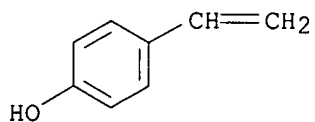
CMF C12 H16 O



CM 3

CRN 2628-17-3

CMF C8 H8 O



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:157678

REFERENCE 2: 127:115290

L61 ANSWER 15 OF 15 REGISTRY COPYRIGHT 2006 ACS on STN

RN **174459-19-9** REGISTRY

ED Entered STN: 22 Mar 1996

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)cyclohexane (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclohexane, 1,4-bis(ethenyloxy)-, polymer with 4-ethenylphenol (9CI)

MF (C10 H16 O2 . C8 H8 O)x

CI PMS

PCT Polystyrene, Polyvinyl

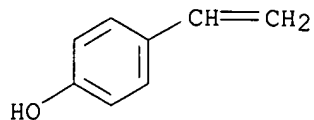
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 2628-17-3

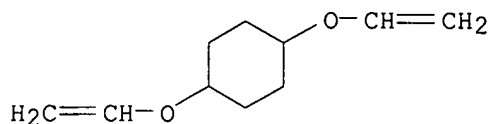
CMF C8 H8 O



CM 2

CRN 706-13-8

CMF C10 H16 O2



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:216089

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FILE 'HCAPLUS' ENTERED AT 13:09:31 ON 11 SEP 2006

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FILE COVERS 1907 - 11 Sep 2006 VOL 145 ISS 12

FILE LAST UPDATED: 10 Sep 2006 (20060910/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l86 bib abs hitstr retable tot

L86 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:237967 HCAPLUS

DN 142:325916

TI Composition for antireflection film and resist pattern formation

IN Nakayama, Kazuhiko

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005070154	A2	20050317	JP 2003-209378	20030828
PRAI	JP 2003-209378		20030828		

AB The composition, for forming the antireflection film under pos.-working **photoresist** layer, contains (A) a resin, (B) a compound generating an acid by irradiation, (C) a light absorbing agent, and (D) an organic solvent, in which the composition crosslinks by heating and changes from insol. to soluble in alkaline solution by the action of acid generated from B. The resist pattern is manufactured by the steps of (1) coating the composition on a support and heating for antireflection film formation, (2) coating the pos. **photoresist** on the antireflection film and heating, (3) selectively exposing, (4) post-exposure baking, and (5) developing by an aqueous alkaline solution. Mixing phenomena of the antireflection film and **photoresist** layer are prevented and the antireflection film can be removed without dry etching process.

IT 803688-39-3P, Cyclohexanedimethanol divinyl ether-hydroxystyrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antireflection film for pos. **photoresist** pattern formation)

RN 803688-39-3 HCAPLUS

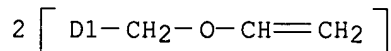
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



D1-OH

D1-CH=CH₂

L86 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:235470 HCAPLUS

DN 142:325909

TI Lift-off resist material and formation of resist pattern with controlled width of under layer

IN Nakayama, Kazuhiko; Harada, Hisanori; Takagi, Isamu

PA **Tokyo Ohka Kogyo Co., Ltd., Japan**

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005070153	A2	20050317	JP 2003-209377	20030828
PRAI	JP 2003-209377		20030828		

AB The lift-off resist material, comprising (A) a resin, (B) a compound generating an acid by irradiation, and (C) an organic solvent, crosslinks by heating and changes from insol. to soluble in alkaline solution by the action of acid generated from B. The lift-off resist pattern is manufactured by the steps of (1) forming an under resist layer by coating the lift-off resist material on a support and heating, (2) coating an upper resist layer comprising (non) chemical amplification-type pos. resist composition and heating,

(3) selectively exposing, (4) post exposure baking, and (5) developing with an aqueous alkaline solution for forming resist pattern with cross section narrow at the interface between the support and the resist layer. The width of the under resist layer is controlled easily.

IT **803688-38-2P** Cyclohexanedimethanol divinyl ether-hydroxystyrene-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(lift-off resist material with under layer containing alkali-soluble resin and acid generator)

RN 803688-38-2 HCAPLUS

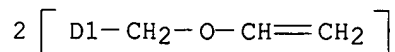
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

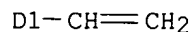
CRN 31257-96-2

CMF C8 H8 O

CCI IDS



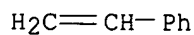
D1-OH



CM 3

CRN 100-42-5

CMF C8 H8



L86 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:33915 HCAPLUS

DN 142:103184

TI Chemically amplified positive **photoresist** compositions and
method for forming resist patterns for system LCD with excellent heat
resistance and sensitivity

IN Nakagawa, Yusuke; Hidesaka, Shinichi; **Miyagi, Masaru**; Harada,
Hisanobu

PA **Tokyo Ohka Kogyo Co., Ltd., Japan**

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

jan delaval - 11 september 2006

PI	JP 2005010213	A2	20050113	JP 2003-171027	20030616
	KR 2004111034	A	20041231	KR 2004-43440	20040614
PRAI	JP 2003-171027	A	20030616		

OS MARPAT 142:103184

AB The comps. with acid content ≤ 50 ppm contain alkali-soluble polymers, compds. $\text{H}_2\text{C}:\text{CHOR}_1\text{OCH}:\text{CH}_2$ [$\text{R}_1 = (\text{un})\text{substituted C1-10 alkylene}$, $\text{R}_4\text{mQR}_4\text{m}$; $\text{R}_4 = (\text{un})\text{substituted C1-10 alkylene}$; $\text{m} = 0, 1$], photoacid generators, and organic solvents. The method contains applying the comps. on substrates, prebaking them, selectively exposing the resist films via masks with patterns of $\leq 2.0 \mu\text{m}$ and those of $> 2.0 \mu\text{m}$, post-exposure baking them, and developing them in alkaline solns., thus giving resist patterns for IC and those for LCD units simultaneously.

IT **819800-41-4P**
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (chemical amplified pos. **photoresists** for forming IC and LCD patterns on substrates simultaneously with good heat resistance and sensitivity)

RN 819800-41-4 HCAPLUS

CN Phenol, ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 31257-96-2
 CMF C8 H8 O
 CCI IDS

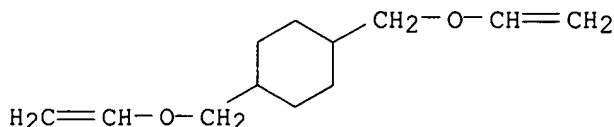


D1-OH

D1-CH=CH₂

CM 2

CRN 17351-75-6
 CMF C12 H20 O2



CM 3

CRN 100-42-5
CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

L86 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:1037374 HCAPLUS
DN 142:45895
TI Chemically amplified positive photo resist composition and method for forming resist pattern
IN Maruyama, Kenji; Kurihara, Masaki; Miyagi, Ken; Niikura, Satoshi; Shimatani, Satoshi; Masujima, Masahiro; Nitta, Kazuyuki; Yamaguchi, Toshihiro; Doi, Kosuke
PA Tokyo Ohka Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004104702	A1	20041202	WO 2004-JP7139	20040519
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CN 1698016	A	20051116	CN 2004-80000692	20040519
	US 2005244740	A1	20051103	US 2005-522036	20050119
PRAI	JP 2003-141805	A	20030520		
	JP 2003-426503	A	20031224		
	WO 2004-JP7139	W	20040519		

AB The disclosed chemical amplified pos. **photoresist** composition which comprises an organic solvent and, dissolved therein, a resin being prepared through the reaction of a novolac resin or a hydroxystyrene resin with a crosslinking agent, being slightly soluble or insol. in an alkaline aqueous solution and exhibiting enhanced solubility into an aqueous alkali solution in the presence of an acid, and (B) a compound generating an acid by the irradiation with a radiation,

wherein it contains an acid component in a amount of 10 ppm or less. The chemical amplified pos. **photoresist** composition can form a resist exhibiting good storage stability as a resist solution in a bottle.

IT **803688-38-2P**, Hydroxystyrene-styrene-cyclohexanedimethanol divinyl ether copolymer **803688-39-3P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. **photoresist** composition containing acid generator and)
RN **803688-38-2** HCAPLUS

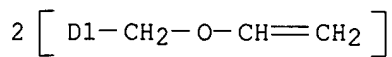
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

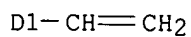
CRN 31257-96-2

CMF C8 H8 O

CCI IDS



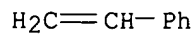
D1-OH



CM 3

CRN 100-42-5

CMF C8 H8



RN 803688-39-3 HCAPLUS

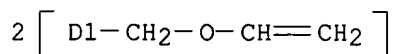
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



D1-OH

D1-CH=CH₂

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Japan Synthetic Rubber	1991			JP 03-185448 A	HCAPLUS
Japan Synthetic Rubber	1994			JP 06-43651 A	HCAPLUS
Jsr Corp	2001			JP 2001109155 A	HCAPLUS
Jsr Corp	2001			US 6465150 B1	HCAPLUS
Jsr Corp	2002			EP 1164433 A1	HCAPLUS
Jsr Corp	2002			JP 200272477 A	
Shin-Etsu Chemical Co L	1998			JP 10-204125 A	HCAPLUS
Shin-Etsu Chemical Co L	1998			JP 10-207066 A	HCAPLUS
Shin-Etsu Chemical Co L	1998			US 5942367 A	HCAPLUS
Shin-Etsu Chemical Co L	1998			US 5942367 A	HCAPLUS
Shin-Etsu Chemical Co L	1998			US 6114462 A	HCAPLUS
Shin-Etsu Chemical Co L	1998			US 6114462 A	HCAPLUS
Shin-Etsu Chemical Co L	2002			JP 200299090 A	
Tokyo Ohka Kogyo Co Ltd	2002			EP 1182506 A1	HCAPLUS
Tokyo Ohka Kogyo Co Ltd	2002			JP 200262656 A	
Tokyo Ohka Kogyo Co Ltd	2003			JP 200350460 A	
Toshiba Corp	1997			JP 09-68795 A	HCAPLUS

=> => d 190 bib abs hitstr retable tot

L90 ANSWER 1 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:237967 HCAPLUS

DN 142:325916

TI Composition for antireflection film and **resist** pattern formation

IN Nakayama, Kazuhiko

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005070154	A2	20050317	JP 2003-209378	20030828 <--
PRAI	JP 2003-209378		20030828	<--	

AB The composition, for forming the antireflection film under pos.-working **photoresist** layer, contains (A) a resin, (B) a compound generating an acid by irradiation, (C) a light absorbing agent, and (D) an organic solvent, in which the composition crosslinks by heating and changes from insol. to soluble in alkaline solution by the action of acid generated from B. The **resist** pattern is manufactured by the steps of (1) coating the composition on a support and heating for antireflection film formation, (2) coating the pos. **photoresist** on the antireflection film and heating, (3) selectively exposing, (4) post-exposure baking, and (5) developing by an aqueous alkaline solution. Mixing phenomena of the antireflection film and **photoresist** layer are prevented and the antireflection film can be removed without dry etching process.

IT 803688-39-3P, Cyclohexanedimethanol divinyl ether-hydroxystyrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antireflection film for pos. **photoresist** pattern formation)

RN 803688-39-3 HCAPLUS

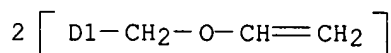
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

CRN 31257-96-2
CMF C8 H8 O
CCI IDS



D1-OH

D1-CH=CH₂

L90 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:235470 HCAPLUS

DN 142:325909

TI Lift-off **resist** material and formation of **resist** pattern with controlled width of under layer

IN Nakayama, Kazuhiko; Harada, Hisanori; Takagi, Isamu

PA Tokyo Ohka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005070153	A2	20050317	JP 2003-209377	20030828 <--
PRAI	JP 2003-209377		20030828 <--		

AB The lift-off **resist** material, comprising (A) a resin, (B) a compound generating an acid by irradiation, and (C) an organic solvent, crosslinks

by heating and changes from insol. to soluble in alkaline solution by the action of

acid generated from B. The lift-off **resist** pattern is manufactured by the steps of (1) forming an under **resist** layer by coating the lift-off **resist** material on a support and heating, (2) coating an upper **resist** layer comprising (non) chemical amplification-type pos. **resist** composition and heating, (3) selectively exposing, (4) post exposure baking, and (5) developing with an aqueous alkaline solution for forming **resist** pattern with cross section narrow at the interface between the support and the **resist** layer. The width of the under **resist** layer is controlled easily.

IT **803688-38-2P**, Cyclohexanedimethanol divinyl ether-hydroxystyrene-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

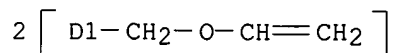
(lift-off **resist** material with under layer containing alkali-soluble resin and acid generator)

RN **803688-38-2** HCAPLUS

CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2
 CMF C12 H20 O2
 CCI IDS

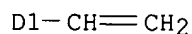


CM 2

CRN 31257-96-2
 CMF C8 H8 O
 CCI IDS

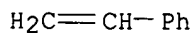


D1-OH



CM 3

CRN 100-42-5
 CMF C8 H8



L90 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:33915 HCAPLUS
 DN 142:103184
 TI Chemically amplified positive **photoresist** compositions and
 method for forming **resist** patterns for system LCD with excellent
 heat **resistance** and sensitivity
 IN Nakagawa, Yusuke; Hidesaka, Shinichi; Miyagi, Masaru; Harada, Hisanobu
 PA Tokyo Ohka Kogyo Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005010213	A2	20050113	JP 2003-171027	20030616 <--
	KR 2004111034	A	20041231	KR 2004-43440	20040614 <--
PRAI	JP 2003-171027	A	20030616	<--	
OS	MARPAT 142:103184				
AB	The compns. with acid content ≤ 50 ppm contain alkali-soluble polymers, compds. $\text{H}_2\text{C:CHOR1OCH:CH}_2$ [$\text{R1} = (\text{un})\text{substituted C1-10 alkylene}$, R4mQR4m ; $\text{R4} = (\text{un})\text{substituted C1-10 alkylene}$; $m = 0, 1$], photoacid generators, and organic solvents. The method contains applying the compns. on substrates, prebaking them, selectively exposing the resist films via masks with patterns of $\leq 2.0 \mu\text{m}$ and those of $> 2.0 \mu\text{m}$, post-exposure baking them, and developing them in alkaline solns., thus giving resist patterns for IC and those for LCD units simultaneously.				
IT	819800-41-4P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chemical amplified pos. photoresists for forming IC and LCD patterns on substrates simultaneously with good heat resistance and sensitivity)				
RN	819800-41-4 HCAPLUS				
CN	Phenol, ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)				
CM	1				
CRN	31257-96-2				
CMF	C8 H8 O				
CCI	IDS				



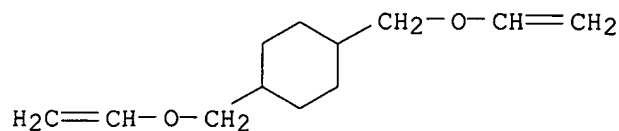
D1-OH

D1-CH=CH₂

CM 2

CRN 17351-75-6

CMF C12 H20 O2



CM 3

CRN 100-42-5

CMF C8 H8

 $H_2C=CH-Ph$

L90 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1058726 HCAPLUS

DN 142:45908

TI Method of forming positive-working **resist** pattern using phenolic resin composition

IN Yasunami, Shoichiro; Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 50 pp.

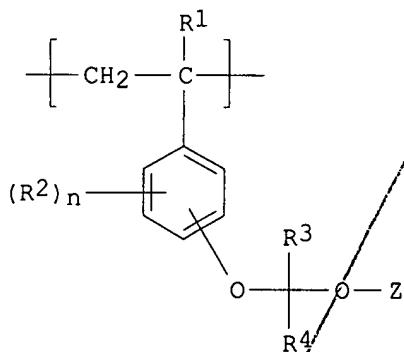
CODEN: JKXXAF

DT Patent

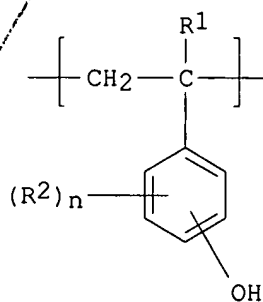
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004347985	A2	20041209	JP 2003-146613	20030523 <--
PRAI	JP 2003-146613		20030523 <--		
GI					



I



II

AB Disclosed is the process using a **resist** composition made up of (a) an alkali-insol. or alkali-hardly soluble phenolic resin having phenolic OH protected by acetal or ketal group and becoming alkali soluble upon the interaction with an acid, (b) a compound generating sulfonic acid upon receiving electron beam, x-ray, or EUV, and (c) a solvent, wherein the process comprises the steps of applying the composition on a substrate to a film thickness ≤ 250 nm, effecting imagewise exposure, and developing. The phenolic resin may have repeating units represented by I and II ($R_1 = H, Me, cyano, etc.$; $R_2 = alkyl, halo, etc.$; $R_{3,4} = H, C1-4 alkyl$; and $Z = C6-30$ ring structure).

IT 288620-13-3P

RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(formation of pos.-working **resist** pattern using phenolic resin composition)

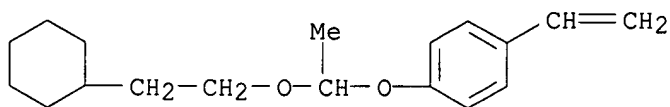
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

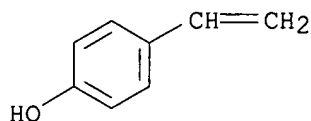
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



IT **754191-55-4**

RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(formation of pos.-working **resist** pattern using phenolic resin composition)

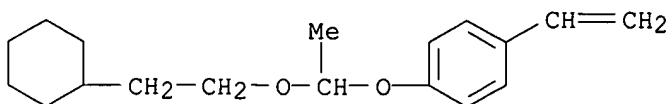
RN 754191-55-4 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-methoxybenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

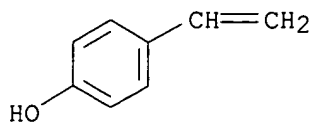
CMF C18 H26 O2



CM 2

CRN 2628-17-3

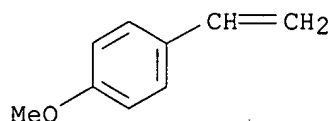
CMF C8 H8 O



CM 3

CRN 637-69-4

CMF C9 H10 O



L90 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:1037374 HCAPLUS
 DN 142:45895
 TI Chemically amplified positive photo **resist** composition and
 method for forming **resist** pattern
 IN Maruyama, Kenji; Kurihara, Masaki; Miyagi, Ken; Niikura, Satoshi;
 Shimatani, Satoshi; Masujima, Masahiro; Nitta, Kazuyuki; Yamaguchi,
 Toshihiro; Doi, Kosuke
 PA Tokyo Ohka Kogyo Co., Ltd., Japan
 SO PCT Int. Appl., 79 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 2

Pres. App.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004104702	A1	20041202	WO 2004-JP7139	20040519 <--
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	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,				
	SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,				
	SN, TD, TG				
	CN 1698016	A	20051116	CN 2004-80000692	20040519 <--
	US 2005244740	A1	20051103	US 2005-522036	20050119 <--
PRAI	JP 2003-141805	A	20030520	<--	
	JP 2003-426503	A	20031224	<--	
	WO 2004-JP7139	W	20040519		

AB The disclosed chemical amplified pos. **photoresist** composition which
 comprises an organic solvent and, dissolved therein, a resin being prepared
 through the reaction of a novolac resin or a hydroxystyrene resin with a
 crosslinking agent, being slightly soluble or insol. in an alkaline aqueous
 solution and

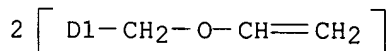
exhibiting enhanced solubility into an aqueous alkali solution in the presence of an acid, and (B) a compound generating an acid by the irradiation with a radiation,

wherein it contains an acid component in a amount of 10 ppm or less. The chemical amplified pos. **photoresist** composition can form a **resist** exhibiting good storage stability as a **resist** solution in a bottle.

IT **803688-38-2P**, Hydroxystyrene-styrene-cyclohexanedimethanol divinyl ether copolymer **803688-39-3P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. **photoresist** composition containing acid generator and)
 RN **803688-38-2** HCAPLUS
 CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2
 CMF C12 H20 O2
 CCI IDS



CM 2

CRN 31257-96-2
 CMF C8 H8 O
 CCI IDS



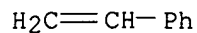
D1-OH

D1-CH=CH₂

CM 3

CRN 100-42-5

CMF C8 H8



RN 803688-39-3 HCAPLUS

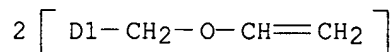
CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS



CM 2

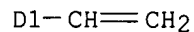
CRN 31257-96-2

CMF C8 H8 O

CCI IDS



D1-OH



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Japan Synthetic Rubber	1991			JP 03-185448 A	HCAPLUS
Japan Synthetic Rubber	1994			JP 06-43651 A	HCAPLUS
Jsr Corp	2001			JP 2001109155 A	HCAPLUS
Jsr Corp	2001			US 6465150 B1	HCAPLUS
Jsr Corp	2002			EP 1164433 A1	HCAPLUS
Jsr Corp	2002			JP 200272477 A	
Shin-Etsu Chemical Co L	1998			JP 10-204125 A	HCAPLUS

Shin-Etsu Chemical Co L 1998			JP 10-207066 A		HCAPLUS
Shin-Etsu Chemical Co L 1998			US 5942367 A		HCAPLUS
Shin-Etsu Chemical Co L 1998			US 5942367 A		HCAPLUS
Shin-Etsu Chemical Co L 1998			US 6114462 A		HCAPLUS
Shin-Etsu Chemical Co L 1998			US 6114462 A		HCAPLUS
Shin-Etsu Chemical Co L 2002			JP 200299090 A		
Tokyo Ohka Kogyo Co Ltd 2002			EP 1182506 A1		HCAPLUS
Tokyo Ohka Kogyo Co Ltd 2002			JP 200262656 A		
Tokyo Ohka Kogyo Co Ltd 2003			JP 200350460 A		
Toshiba Corp	1997		JP 09-68795 A		HCAPLUS

L90 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:904380 HCAPLUS

DN 141:386375

TI Positive-working **photoresist** composition for semiconductor device fabrication

IN Shirakawa, Hiroshi; Fujimori, Toru; Yasunami, Shoichiro; Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004302081	A2	2004-02-28	JP 2003-94332	20030331 <--
PRAI	JP 2003-94332		20030331	<--	

AB The title composition contains a resin which increases the solubility in an alkali

developers by reacting with an acid, and a photoacid generator, wherein the resin has group -O-(R1)C(R2)-O-[-(R3)C(R4)-]m-Z (R1-2 = H, C1-4 alkyl; R3-4 = H, alkyl; Z = Ph, alicyclic; m = integer 1-20) and wherein the photoacid generator consists of cation having a phenolic OH group and anion RSO3- (R = F-containing C_{≥2} alkyl, alkyl and/or halo substituted Ph, Ph having _{≥2} halo-containing alkyl substituents, etc.). The composition shows high sensitivity and good PED characteristics and **resist** pattern of high resolution and good profile.

IT 288620-13-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in pos.-working **photoresist** composition)

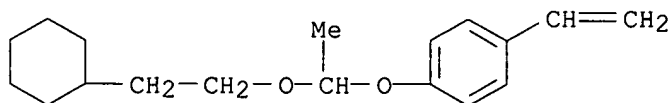
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

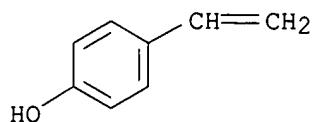
CRN 288620-12-2

CMF C18 H26 O2



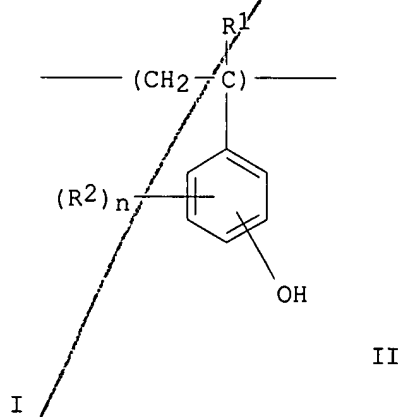
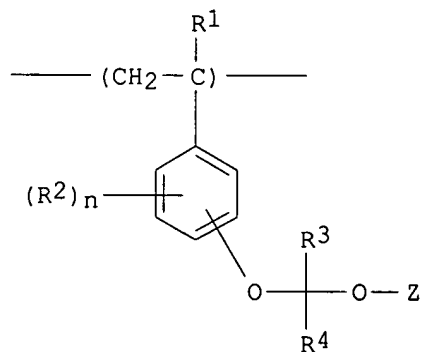
CM 2

CRN 2628-17-3
CMF C8 H8 O



L90 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:739833 HCAPLUS
DN 141:268545
TI Positive working **resist** composition
IN Yasunami, Shoichiro; Shirakawa, Koji; Mizutani, Kazuyoshi
PA Fuji Photo Film Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 37 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004175654	A1	20040909	US 2004-791559	20040303 <--
	JP 2004271629	A2	20040930	JP 2003-58732	20030305 <--
PRAI	JP 2003-58732	A	20030305	<--	
GI					



AB A pos. working **resist** composition comprising (A) a resin containing repeating units represented by the formula I and II (R_1 = H, Me, cyano, halogen, Cl-4-perfluoroalkyl; R_2 = H, alkyl, halogen, aryl, alkoxy, acyl; R_3 and R_4 = H, Cl-4-alkyl; Z = C6-30-hydrocarbon containing at least one cyclic structural unit selected from an alicyclic structure, an aromatic cyclic structure and a bridged alicyclic structure; n = 0-4), and having a property of being insol. or sparingly soluble in an alkali developing solution and becoming soluble in an alkali developing solution by the action of an acid, and (B) a compound capable of generating sulfonic acid upon irradiation with active rays or radiations in an amount of 5-20% by weight based on the total solid content of the pos. working **resist** composition The object of

the invention is to provide a pos. working **resist** composition capable of satisfying high sensitivity, high resolution, good pattern shape and good line edge roughness at the same time.

IT 288620-13-3 754191-55-4

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(resin; pos. working **resist** composition)

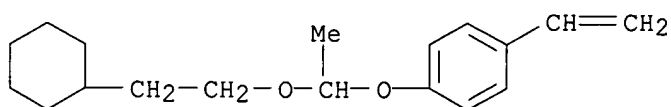
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

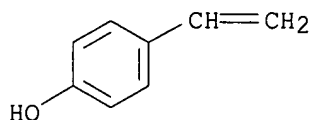
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



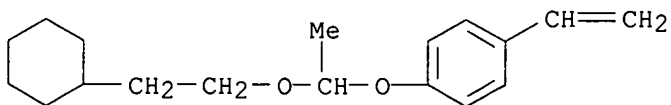
RN 754191-55-4 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-methoxybenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

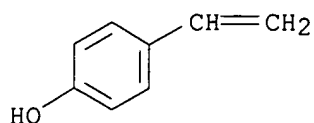
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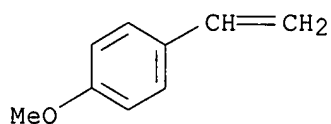
CM 2

CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 637-69-4
CMF C9 H10 O

L90 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:700522 HCAPLUS

DN 141:215640

TI Cyclic ethers and positive **resist** compositions

IN Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 76 pp.

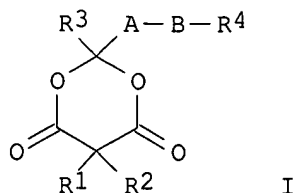
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004238304	A2	20040826	JP 2003-27161	20030204 <--
PRAI	JP 2003-27161		20030204	<--	
OS	MARPAT 141:215640				
GI					



I

AB The cyclic ethers comprise I (R1, R2 = H, alkyl, cycloalkyl, aryl, aralkyl; R1 and R2 may form ring or substituent bonded to ring via double bond; R3, R4 = alkyl, cycloalkyl, aryl, aralkyl; A = alkylene; B = heteroatom). The compns. comprise acid-generating agents by irradiation of actinic ray or radiation, alkali developer-insol. polymers showing solubility for alkali developers by the action of acids, and I. The compns. are useful for manufacture of semiconductor devices and circuit boards and photofabrication. The compns. show good roundness of contact holes and rectangular profiles.

IT 288620-13-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(cyclic ethers for pos. **resists** with good roundness of contact holes and rectangular profiles)

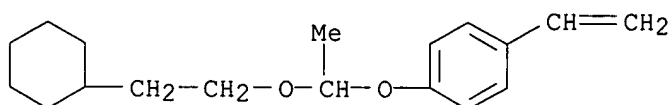
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

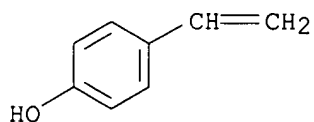
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:632360 HCAPLUS

DN 141:181968

TI Chemically amplified positive **resist** compositions with improved line edge roughness and suppressed scum generation

IN Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 93 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004219571	A2	20040805	JP 2003-4801	20030110 <--
PRAI	JP 2003-4801		20030110		

AB The pos. **resist** compns. contain (A) compds. generating acids by irradiation of actinic light, or irradiation, (B) resins which are insol. or slightly soluble in alkali developers and become soluble to the alkali developers with the assistance of acids, and (C) basic compds. bearing groups which generate polar groups with the assistance of acids.

IT 288620-13-3P

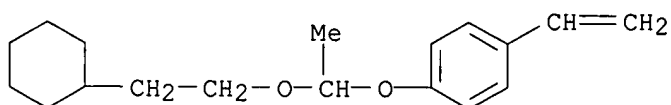
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified pos. **resist** compns. with improved line edge roughness and suppressed scum generation)

RN 288620-13-3 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

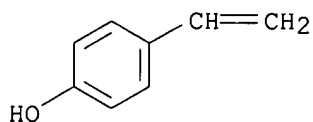
CM 1

CRN 288620-12-2
 CMF C18 H26 O2



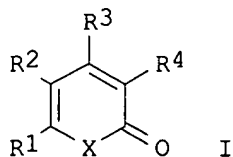
CM 2

CRN 2628-17-3
 CMF C8 H8 O



L90 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:271619 HCAPLUS
 DN 140:311999
 TI Photosensitive acid generators and photosensitive compositions
 IN Kodama, Kunihiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 83 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004099726	A2	20040402	JP 2002-262750	20020909 <--
PRAI	JP 2002-262750		20020909	<--	
OS	MARPAT 140:311999				
GI					



AB The disclosed photoacid generators are compds. of the formula I (R1-4 = H, alkyl, aryl, halo, alkoxy; ≥ 1 of R1-4 is a substituent having

OSO2R end group; R = alkyl, aryl, camphor moiety; X = O, NH, NR5, CHnR5m; R5 =alkyl; n, m = 0, 1, 2; n + m = 2; adjacent two of R1-4 may combine to form rings). The disclosed pos.-working photosensitive composition comprises the photoacid generator and an alkali-soluble resin. The disclosed neg.-working photosensitive composition comprises the photoacid generator, alkali-soluble resin and acid crosslinking agent. The photosensitive composition

exhibit high sensitivity, excellent resolution, and image quality.

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
(resin for photoacid generation type neg.-working **photoresist** compns.)

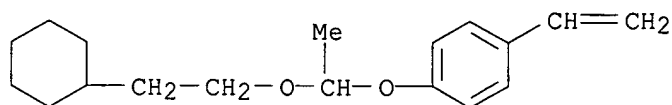
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

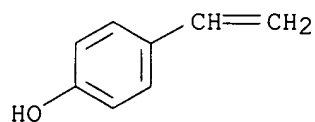
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:268721 HCAPLUS

DN 140:311990

TI Chemically amplified negative and positive **photoresist** compositions with high resolution giving good pattern profiles with no foreign substance

IN Takahashi, Akira; Mizutani, Kazuyoshi; Yasunami, Shoichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 78 pp.

CODEN: JKXXAF

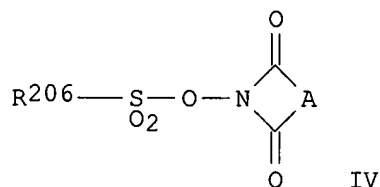
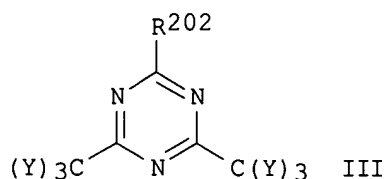
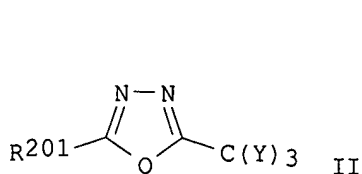
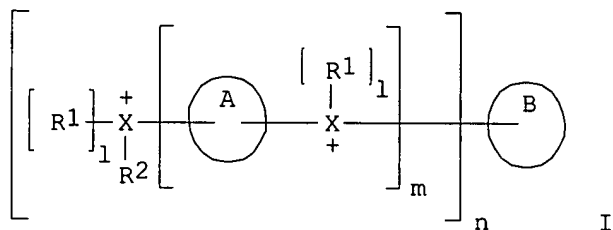
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004101645	A2	20040402	JP 2002-260267	20020905 <--
PRAI	JP 2002-260267		20020905	<--	
OS	MARPAT 140:311990				

GI



AB The neg. **photoresist** compns. comprise (A) photoacid generators having structures I (X = S, iodine; R1, R2 = alkyl, aryl; A, B = hydrocarbon group linking X+, at least one of the X+ in the same conjugation; l = 0 when X = iodine; l = 1 when X = S; m = 0-10; n = 1-6; n ≥ 2 when m = 0) and counter ions, (B) other photoacid generators selected from II (R201 = aryl, alkenyl; Y = Cl, Br), III (R202 = aryl, alkenyl, alkyl, CY3; Y = same as above), Ar3(SO2)2Ar4 (Ar3, Ar4 = aryl), IV (R206 = alkyl, aryl; A = alkylene, alkenylene, arylene), and (RSO2)2C:N2 (R = alkyl, aryl), (C) alkali-soluble resins, and (D) crosslinkers reacting with the resins in the presence of acids. The pos. compns. contain, instead of C and D, resins increasing their alkali solubility in the presence of acids. The **photoresists** are sensitive to electron beams, x-ray beams, or extreme UV (EUV).

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
(acid-decomposable resin; chemical amplified neg. and pos.
photoresists with high resolution giving good pattern profiles
with no foreign substance)

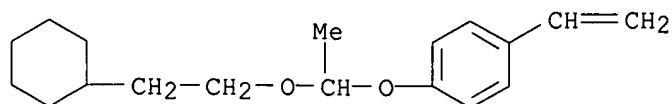
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

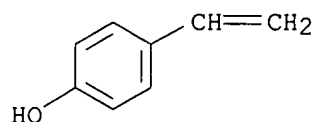
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STM
 AN 2004:252076 HCAPLUS
 DN 140:294782
 TI **Resist** composition
 IN Takahashi, Hyou; Mizutani, Kazuyoshi; Yasunami, Shoichiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO U.S. Pat. Appl. Publ., 54 pp.
 CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004058272	A1	20040325	US 2003-654942	20030905 <--
	US 6902862	B2	20050607		
	JP 2004101706	A2	20040402	JP 2002-261401	20020906 <--
PRAI	JP 2002-261401	A	20020906	<--	

OS MARPAT 140:294782

AB A neg. type **resist** composition comprises: (A1) a compound generating a sulfonic acid upon irradiation with actinic rays or a radiation and having the specific formula, (A2) a compound generating a sulfonic acid upon irradiation with actinic rays or a radiation and having the specific structure, (B) an alkali-soluble resin, and (C) a crosslinking agent capable of carrying out an addition reaction with the alkali-soluble resin which is the component (B) by the action of an acid.

IT **288620-13-3**

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(alkali-soluble resin; **resist** composition containing)

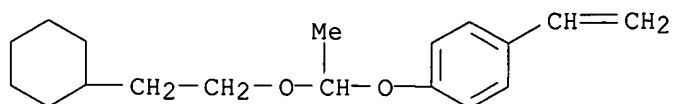
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

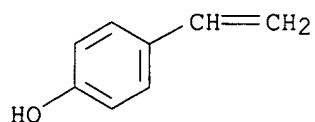
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1998			JP 10039500 A	HCAPLUS
Anon	1999			JP 2968055 B2	HCAPLUS
Anon	2001			JP 2001142200 A	HCAPLUS
Saeva	1992			US 5089374 A	HCAPLUS
Takahashi	2003			US 6558871 B1	HCAPLUS

L90 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:18781 HCAPLUS

DN 140:84637

TI **Resist** composition

IN Takahashi, Hyou; Yasunami, Shoichiro; Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 47 pp.

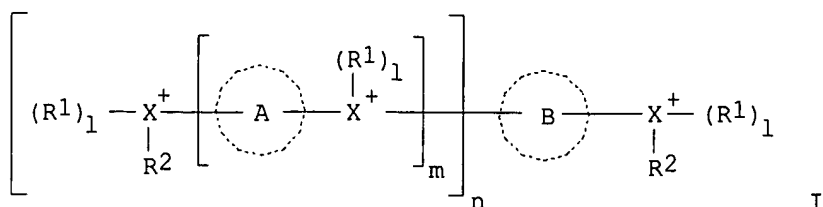
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004005513	A1	20040108	US 2003-606845	20030627 <--
	US 7083892	B2	20060801		
	JP 2004086188	A2	20040318	JP 2003-185174	20030627 <--
	US 2006147837	A1	20060706	US 2006-359424	20060223 <--
PRAI	JP 2002-190581	A	20020628	<--	
	US 2003-606845	A3	20030627	<--	
OS	MARPAT 140:84637				
GI					



AB The **resist** composition of the present invention, ensuring excellent pattern profile and excellent isolation performance for use in the pattern formation by the irradiation of actinic rays or radiation, particularly, electron beam, X ray or EUV light, which comprising (A) a compound having a specific partial structure represented by I [X = sulfur atom, iodine atom; R¹, R² = alkyl, aryl; A, B = hydrocarbon structure; l = 0, 1; m = 0-10; n = 1-5] and a counter ion, the compound generating an acid upon irradiation of actinic rays or radiation, (B) an alkali-soluble resin, and (C) a crosslinking agent of undergoing an addnl. reaction with the alkali-soluble resin.

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
(acid decomposable resin; **resist** composition showing excellent pattern profile and isolation performance)

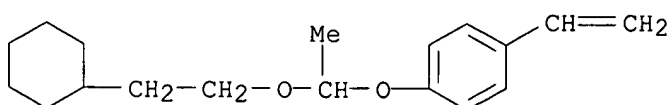
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

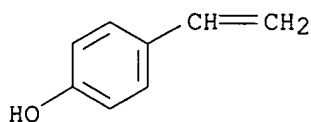
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:853315 HCAPLUS

DN 139:356046

TI Chemically amplified positive-working **photoresist** composition

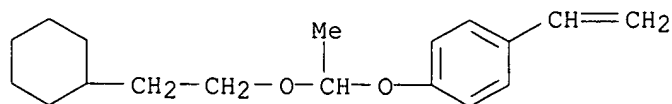
IN Hyakuta, Atsushi; Kawabe, Yasumasa

PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003307840	A2	20031031	JP 2003-35222	20030213 <--
PRAI	JP 2002-35817	A	20020213	<--	
OS	MARPAT 139:356046				
AB	The claimed composition comprises (a) a resin increasing its alkali solubility by acid decomposition and (b) compds. capable of generating an acid upon irradiation with an actinic ray or a radiation (1) an oximesulfonate compound R1R2C:NOO2SR3 (R1 and R2 = alkyl, alkenyl, alkynyl, aryl, heterocyclic, or cyano; R1 and R2 may combine to form a ring; R3 = alkyl or aryl) and (2) an onium salt R11N+R12R13R14X-, R15S+R16R17X-, and/or R18I+R19X- (R11-R19 = alkyl, cycloalkyl, acyl, or aryl; X- = OH- or anion of carboxylic acid having mol. weight ≤100). The composition provides suppressed line edge roughness and high PED (post-exposure delay) stability.				
IT	288620-13-3P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chemical amplified pos.-working photoresist composition containing oximesulfonate compound and onium salt)				
RN	288620-13-3 HCAPLUS				
CN	Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)				

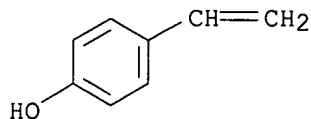
CM 1

CRN 288620-12-2
 CMF C18 H26 O2



CM 2

CRN 2628-17-3
 CMF C8 H8 O



L90 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:853314 HCAPLUS
 DN 139:343479

TI Sulfonium compounds as radiation-sensitive acid generators and **resist** compositions containing them

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 66 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003307839	A2	20031031	JP 2002-112372	20020415 <--
PRAI	JP 2002-112372		20020415	<--	

OS MARPAT 139:343479

AB (Ba)mAaS+Y1Y2 X- (I; Y1, Y2 = alkyl, aryl, aralkyl, heterocyclyl, oxoalkyl, oxoaralkyl; Y1 and Y2 may be bonded together to form a ring; Aa = direct bond, organic group; Ba = group having CONRa or SO2NRa; Ra = H, alkyl; m = 1-3; X- = nonnucleophilic anion), which generate acids upon irradiation with actinic ray or radiation, are claimed. Also claimed are **resist** compns. containing I, pos.-working **resist** compns. containing I and resins which are decomposed by acids to show increased solubility to an alkaline developer, neg.-working **resist** compns. containing I, water-insol. alkali-soluble resins, and crosslinking agents which crosslink to the alkali-soluble resins by acids, etc. The **resist** compns. containing I show high sensitivity, resolution, and good profile, and are especially suitable for irradiation with far-UV and electron beam.

IT 288620-13-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive acid generators and **resist** compns. containing them)

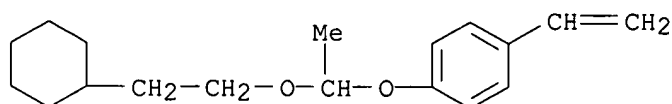
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

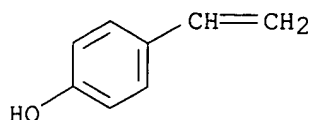
CMF C18 H26 O2



CM 2

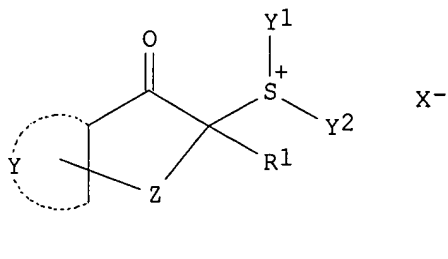
CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:834248 HCAPLUS
 DN 139:330330
 TI Chemically amplified **photoresist** compositions with high
 sensitivity and resolution
 IN Kodama, Kunihiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 63 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003302754	A2	20031024	JP 2002-110738	20020412 <--
PRAI	JP 2002-110738		20020412	<--	
OS	MARPAT 139:330330				
GI					



AB The **resist** compns., useful for excimer laser development,
 contain photoacid generators I (R1 = H, alkyl, aryl, cyano; Y1, Y2 =
 alkyl, aryl, aralkyl, heteroring; Y = condensed aromatic group, heteroring; Z
 = single bond, divalent linking group; X- = nonnucleophilic anion).

IT **288620-13-3P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (sulfonium-based photoacid generators for excimer laser-sensitive
photoresists with high sensitivity and resolution)

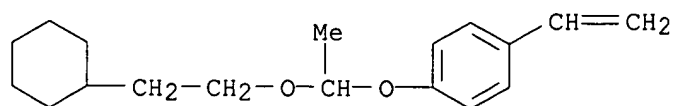
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-
 ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

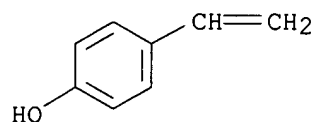
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:390317 HCAPLUS

DN 138:409368

TI Positive-working **resist** composition showing excellent sensitivity, resolution, and pattern profile

IN Takahashi, Omote; Yasunami, Shoichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

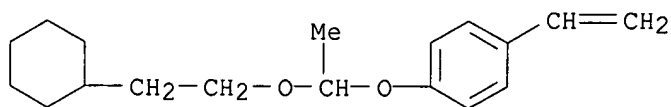
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003149800	A2	20030521	JP 2001-346121	20011112 <--
PRAI	JP 2001-346121		20011112	<--	
OS	MARPAT 138:409368				
GI					

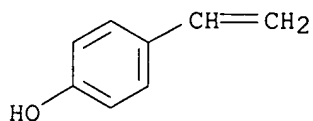
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title pos.-working **resist** composition, sensitive to an electron beam, x-ray, and 150-250 nm excimer laser, comprises (A) an acid generator represented by I (W = CH₂, CYH, NH; Y = aryl, alkyl; R1a-8a = H, halo, OH, thiol, nitro, cyano, carboxyl, amino, alkyl, alkoxy), II (R1-15 = H, alkyl, alkoxy, hydroxy, halo, SR38; R38 = alkyl, aryl; X = F-containing alkylsulfonic acid, benzenesulfonic acid, naphthalenesulfonic acid, anthracenesulfonic acid), III (R16-27 = H, alkyl, alkoxy, hydroxy, halo, SR38; R38 = alkyl, aryl; X = F-containing alkylsulfonic acid, benzenesulfonic acid, naphthalenesulfonic acid, anthracenesulfonic acid), or IV (R28-37 = H, alkyl, alkoxy, hydroxy, halo, SR38; R38 = alkyl, aryl; X = F-containing alkylsulfonic acid, benzenesulfonic acid, naphthalenesulfonic acid, anthracenesulfonic acid), and (B) a polymer which is insol. or difficult soluble to an alkaline aqueous solution and becomes soluble to the alkaline aqueous solution upon an interaction with the generated acid, and optionally (C) a N-containing base

compound
 IT **288620-13-3**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acid decomposable polymer; pos.-working **resist** composition
 showing excellent sensitivity, resolution, and pattern profile)
 RN 288620-13-3 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-
 ethenylbenzene (9CI) (CA INDEX NAME)
 CM 1
 CRN 288620-12-2
 CMF C18 H26 O2



CM 2
 CRN 2628-17-3
 CMF C8 H8 O



L90 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:241052 HCAPLUS
 DN 138:262693
 TI Positive **photoresist** composition
 IN Fujimori, Toru; Kawabe, Yasumasa
 PA Fuji Photo Film Co., Ltd., Japan
 SO Eur. Pat. Appl., 101 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1296190	A1	20030326	EP/2002-21204	20020918 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2003167333	A2	20030613	JP 2002-563	20020107 <--
	US 2003134225	A1	20030717	US 2002-244070	20020916 <--
PRAI	JP 2001-285180	A	20010919	<--	
	JP 2002-563	A	20020107	<--	

AB A pos. **resist** composition comprises the components of: (A) a compound capable of generating an acid upon irradiation with one of an actinic ray and a radiation; (B) a resin that is insol. or slightly soluble in alkalis, but becomes alkali-soluble under an action of an acid; (C) a basic compound; and (D) a compound comprising at least three hydroxyl groups or at least three

substituted hydroxyl groups, and comprising at least one cyclic structure. The present invention relates to a pos. **resist** composition used in a process of manufacture semiconductors and which far UV light with wavelengths ≤ 250 nm is used as an exposure light source or an electron beam is used as an irradiation source.

IT **288620-13-3P**

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos. **photoresist** composition containing)

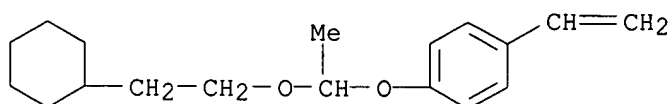
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

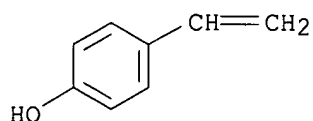
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Fuji Photo Film Co Ltd	1997			EP 0788031 A	HCAPLUS
Fuji Photo Film Co Ltd	1997			EP 0803775 A	HCAPLUS
Fuji Photo Film Co Ltd	1998			EP 0869393 A	HCAPLUS
Maeda, K	2001			US 2001026901 A1	HCAPLUS
Nec Corporation	2000			WO 0001684 A	HCAPLUS

L90 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:152373 HCAPLUS

DN 138:212787

TI Positive-working radiation-sensitive **resist** composition containing specific sulfone imide for semiconductor device fabrication according process such as electron lithography

IN Yasunami, Shoichiro; Nishiyama, Fumiyuki; Hyakuta, Atsushi; Kawamura, Koichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003057827	A2	20030228	JP 2002-110792	20020412 <--
PRAI	JP 2001-115596	A	20010413	<--	
	JP 2001-169770	A	20010605	<--	

OS MARPAT 138:212787

AB The title composition contains an alkali-insol. or hardly soluble polymer which becomes soluble by an acid and a sulfone imide, wherein the sulfone imide has structure R1-N(SO2-R2)(SO2-R3) (R1-3 = alkyl, cycloalkyl, aryl, aralkyl, heterocyclic ring). The composition provides the **resist** of good characteristics on sensitivity, resolution, and pattern profile.

IT 288620-13-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin; pos.-working radiation-sensitive **resist** composition for semiconductor device fabrication according process such as electron lithog.)

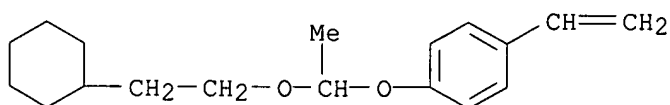
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

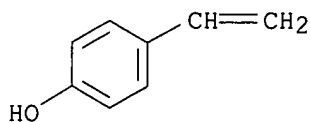
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:97194 HCAPLUS

DN 138:145067

TI Positive radiation-sensitive compositions having high sensitivity and high resolution

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 51 pp.

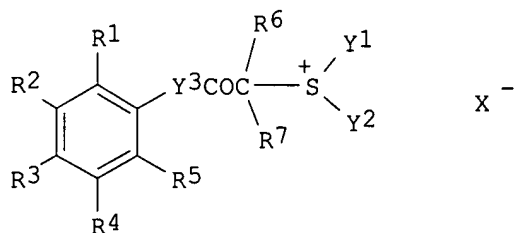
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003035948	A2	20030207	JP 2002-141737	20020516 <--
	TW 565748	B	20031211	TW 2002-91109883	20020513 <--
	US 2003075708	A1	20030424	US 2002-144536	20020514 <--
	US 6733951	B2	20040511		
PRAI	JP 2001-148006	A	20010517	<--	
OS	MARPAT 138:145067				
GI					



AB The compns. contain (A) ≥ 1 compds. generating acids by actinic ray (DUV, electron beam, x-ray, ionic ray) irradiation and represented by general formula I (R1-R5 = H, alkyl, alkoxy, NO₂, halo, alkoxy carbonyl, aryl; ≥ 2 of R1-R5 may be bonded to each other and form ring structure; R6, R7 = H, alkyl, CN, aryl; Y1, Y2 = alkyl, aryl, aralkyl, hetero atom.-containing aromatic group; Y1 and Y2 may be bonded to each other and form ring; Y3 = single bond or divalent linking group; X⁻ = non-nucleophilic anion; ≥ 1 of R1-R5 and Y1 and/or Y2 are bonded to each other and form ring or ≥ 1 of R1-R5 and R6 and/or R7 are bonded to each other and form ring; the compound may bear ≥ 2 of the structure I by bonding via a linking group at desired positions selected from R1-R7 or Y1 or Y2) and (B) resins bearing groups which can be decomposed by acids and increase solubility in alkali developers. In another alternative, the compns. contain A, (C) low mol.-weight dissoln. inhibitors with mol. weight ≤ 3000 and bearing groups which can be decomposed by acids and increase solubility in alkali developers, and (D) resins which are insol. in water and soluble in alkali developers. The compns. are useful for fabrication of lithog. plates, IC, circuit boards for liquid crystals and thermal heads, etc.

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
(base polymer; chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)

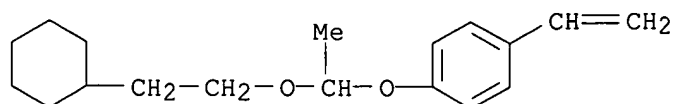
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

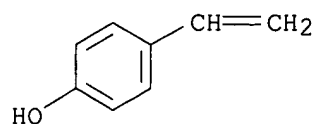
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:886513 HCAPLUS

DN 137:391068

TI **Photoresist** compositions with high resolution, good pattern shape, and reduced edge roughness for electron beam or x-ray photolithography in semiconductor device fabrication

IN Yasunami, Shoichiro; Takahashi, Omote

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002333714	A2	20021122	JP 2001-139097	20010509 <--
PRAI	JP 2001-139097		20010509	<--	

OS MARPAT 137:391068

AB The compns. comprise (A) photoacid generators, (B) N-containing compds. generating carboxyl groups in a mol. by acids, and (C) alkali-insol. resins that increase their alkali solubility by acids for pos.

photoresists. Alternatively, the compns. contain A, B, (D) alkali-soluble resins, and (E) crosslinkers that react with D by acids for neg. **photoresists**.

IT **288620-13-3P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. **resist** containing; **photoresist** compns. with high resolution and good pattern shape for electron beam or x-ray photolithog.)

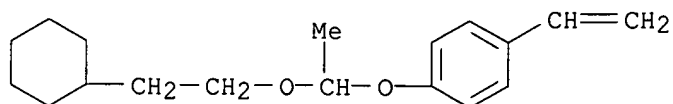
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

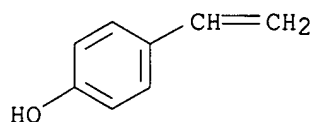
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:711200 HCAPLUS

DN 137:255340

TI Positive-working chemically amplification type radiation-sensitive
resist composition with specified acid generator

IN Kodama, Kunihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 49 pp.

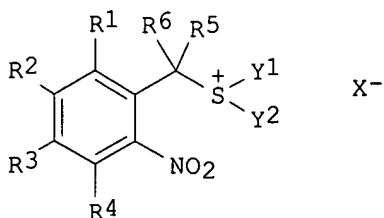
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002268209	A2	20020918	JP 2001-69053	20010312 <--
PRAI	JP 2001-69053		20010312	<--	
OS	MARPAT 137:255340				
GI					



I

AB The invention relates to a pos.-working chemical amplification type radiation-sensitive **resist** composition which comprises (A) a radiation-induced acid generator represented by I [R1-4 = H, alkyl, halogenated alkyl, alkoxy, nitro, alkoxy carbonyl, aryl, cyano; R5, R6 = H, alkyl, cyano, aryl; Y1, Y2 = alkyl, aryl, aralkyl; X- = non-nucleophilic anion], (B) an acid-decomposable, alkaline developable resin, (C) an acid-decomposable, alkaline developable resin with a mol. weight of ≤ 3000 , (D) a water-insol., alkaline-soluble resin, (E) an organic base compound, and (F)

fluoro- and/or silicone-surfactants. The **resist** composition shows higher resolution and higher sensitivity to deep-UV and electron beams.

IT **288620-13-3**

RL: TEM (Technical or engineered material use); USES (Uses)
(in pos.-working chemical amplification type radiation-sensitive **resist** composition showing higher sensitivity and higher resolution to deep-UV and electron beam)

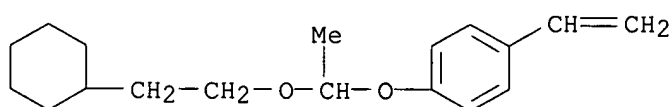
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

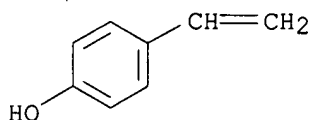
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:636853 HCAPLUS

DN 137:177114

TI Chemically amplified x-ray **photoresists** compositions with high sensitivity and resolution

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 73 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002236358	A2	20020823	JP 2001-32855	20010208 <--
	TW 571178	B	20040111	TW 2002-91101972	20020205 <--
PRAI	JP 2001-32855	A	20010208	<--	
	JP 2001-33923	A	20010209	<--	

OS MARPAT 137:177114

AB The compns. contain photoacid generators (PAG), which are decomposed by intramol. H radical transfer on irradiation

IT **288620-13-3**

RL: TEM (Technical or engineered material use); USES (Uses)

(chemical amplified x-ray **photoresists** compns. with high sensitivity and resolution)

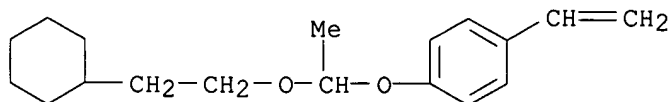
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

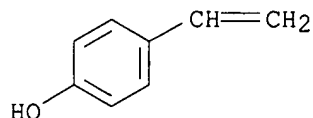
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:518038 HCAPLUS

DN 137:101413

TI Chemically amplified positive **resist** compositions for thermal flow and method for forming high-resolution patterns using them

IN Yamanaka, Tsukasa; Nishiyama, Fumiyuki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002196497	A2	20020712	JP 2001-85283	20010323 <--
	TW 539924	B	20030701	TW 2001-90125209	20011012 <--
PRAI	JP 2000-320810	A	20001020	<--	
	JP 2001-85283	A	20010323	<--	

OS MARPAT 137:101413

AB The compns. contain hydroxystyrene polymers [CH(C6H4OH-p)CH2]1-a[CH(C6H4BL1-p)CH2]a (A; BL1 = acid-decomposable group; a = 0.1-0.5) with Mw 5000-50,000 and dispersibility 1.0-1.3, hydroxystyrene polymers [CH(C6H4OH-p)CH2]1-b-c[CH(C6H4BL2-p)CH2]b[CH(C6H4L1-p)CH2]c (BL2 = acid-decomposable group; L1 = H, acid-nondecomposable group; b = 0.1-0.5; 0.0 < c ≤ 0.3) with Mw 5000-50,000, and photoacid generators. The method contains forming a layer of the composition on a semiconductor substrate, forming a rather large contact hole pattern by radiation exposure (≤300 nm), and heating the substrate at 120-160° so

as to form a contact hole pattern with a desired size.

IT **288620-13-3**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (chemical amplified pos. **resist** compns. containing hydroxystyrene
 polymers for semiconductor contact hole formation by thermal flow
 process)

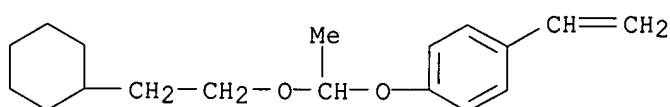
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-
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CM 1

CRN 288620-12-2

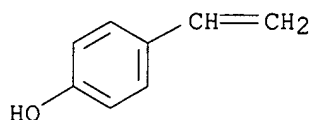
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:427822 HCAPLUS

DN 137:13263

TI Positive-working electron beam or x-ray **resist** compositions
 using specific combination of solvents

IN Uenishi, Kazuya

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 62 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002162733	A2	20020607	JP 2000-357804	20001124 <--
PRAI	JP 2000-357804		20001124	<--	

AB The **resist** compns., which show good pattern profile, high
 sensitivity and resolution, and good stabilities to post coating delay and
 post exposure delay, contain (a) compds. which generate acids upon irradiation
 with radiation, (b) cationically polymerizable compds., and (c) solvents
 comprising ≥ 1 selected from (A) chain ketones and ≥ 1
 selected from (B) alkyl lactates, alkyl alkoxypropionates, acetate esters,
 propylene glycol monoalkyl ethers and/or (C) γ -butyrolactone,
 ethylene carbonate, and propylene carbonate. The compns. may addnl.

contain (d) organic basic compds. and (e) F-containing surfactants and/or silicone surfactants.

IT **288620-13-3DP**, reaction products with poly(p-hydroxystyrene)
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; pos.-working electron beam or x-ray **resist** compns.
 containing cationically-polymerizable monomers and ≥ 2 solvents)

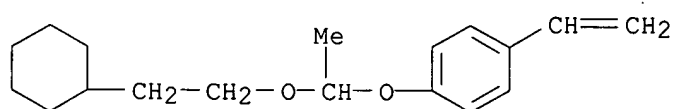
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

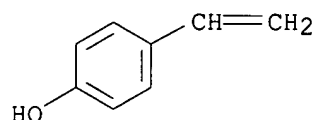
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:388491 HCAPLUS

DN 136:409018

TI Lithographic production of stamper for optical disk by using x ray-sensitive positive-working **resist** as mask

IN Sakamizu, Toshio; Shiraishi, Hiroshi

PA Hitachi Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002150620	A2	20020524	JP 2000-341912	20001109 <--
PRAI	JP 2000-341912		20001109	<--	

AB In the production, the **resist** is an alkali-developable and contains a photoacid generator, and a medium whose solubility to alkalies increases and weight average mol. weight decreases to $\leq 1/2$ that of before, upon exposure to light. The **resist** provides high-resolution and precise pattern.

IT **428821-91-4P**, 1,4-Cyclohexanedimethanol divinyl ether-vinylphenol copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(**resist** component; lithog. production of stamper for optical disk manufacture by using patterned pos.-working **resist** as mask)

RN 428821-91-4 HCAPLUS

CN Phenol, ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 31257-96-2

CMF C8 H8 O

CCI IDS



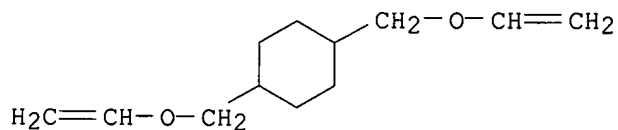
D1-OH

D1-CH=CH₂

CM 2

CRN 17351-75-6

CMF C12 H20 O2



L90 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:378689 HCAPLUS

DN 136:393271

TI Electron beam- or x-ray **resist** compositions with high sensitivity and resolution

IN Kodama, Kunihiro; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002148788	A2	20020522	JP 2000-343818	20001110 <--
PRAI	JP 2000-343818		20001110 <--		
OS	MARPAT 136:393271				
AB	The composition contains a photoacid generator (A) containing ≥1 disulfone				

compound and sulfonium and/or iodonium sulfonate and a polymer (B) bearing an acid-degradable group for increasing solubility in an alkali developer solution

The composition, showing good PSD (post coating delay) stability, gives a pattern with good profile.

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
(alkali-soluble polymer; electron beam- or x-ray **resist** compns.
containing onium sulfonates with high sensitivity and resolution)

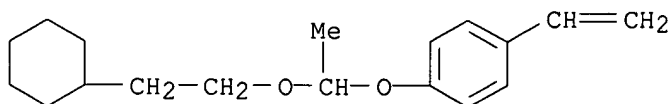
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

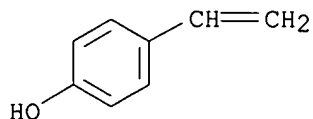
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:368020 HCAPLUS

DN 136:393268

TI Positive-working **resist** compositions containing sulfonic acid generators

IN Kodama, Kuniyuki; Nishiyama, Fumiyuki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002139838	A2	20020517	JP 2000-332802	20001031 <--
PRAI	JP 2000-332802		20001031	<--	

AB The compns., which show high sensitivity, high resolution, and improved process latitude, and give **resist** pattern with good rectangular profile, contain (a) compds. which generate sulfonic acids having alkyl group substituted with ≥ 1 F upon irradiation with actinic ray and (b) resins having a repeating unit $[\text{CH}_2\text{CHR}_1(\text{C}_6\text{H}_4\text{OCR}_2\text{R}_3\text{OR})]$ [$\text{R}_1 = \text{H}$, alkyl,

halo; R2, R3 = H, alkyl; R = (un)substituted C \geq 5 alicyclic hydrocarbonyl, (un)substituted C \geq 6 aryl, (un)substituted C \geq 4 heterocyclyl, (CH₂)_nXR₄ (n = 1-3; X = direct bond, linking group; R₄ = any group given for R); \geq 2 of R, R₂, and R₃ may be bonded together to form a ring] which are decomposed by acids and show increased soluble in an alkaline developer. The compns. may addnl. contain (c) dissoln. inhibitors with mol. weight \leq 3000 which have acid-decomposable group and show increased dissoln. rate in an alkaline developer upon action of acids, (d) N-containing basic compds. and/or basic onium salts, and (e) F-containing surfactants and/or silicone surfactants.

IT 199432-81-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos.-working **resist** compns. containing fluoroalkanesulfonic acid generators and poly(hydroxystyrenes) having alicyclic or (hetero)aromatic group)

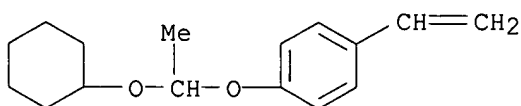
RN 199432-81-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

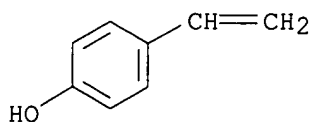
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:253296 HCAPLUS

DN 136:301776

TI Chemical amplification positive working **resist** material

IN Hatakeyama, Jun

PA Shin-Etsu Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

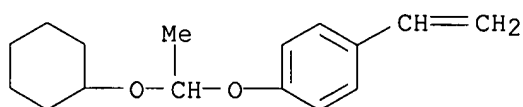
DT Patent

LA Japanese

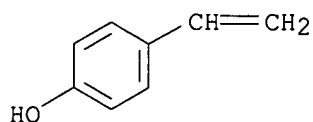
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002099090	A2	20020405	JP 2001-210657	20010711 <--

US 2002042017 A1 20020411 US 2001-907653 20010719 <--
 US 6869744 B2 20050322
 PRAI JP 2000-218490 A 20000719 <--
 AB The chemical amplification pos. working **resist** material used for
 electron beam and soft x-ray exposure comprises ≥ 1 hardly alkaline soluble
 resin having ≥ 2 acid unstable group replacing H of a phenolic OH or
 carboxy group of an alkaline soluble base polymer, wherein one of the acid
 unstable group is acetal or ketal group and the other is a tert
 hydrocarbon group. The chemical amplification pos. working **resist**
 material showed excellent stability in vacuum after the exposure.
 IT **199432-81-0**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (chemical amplification pos. working **resist** material)
 RN 199432-81-0 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-
 ethenylbenzene (9CI) (CA INDEX NAME)
 CM 1
 CRN 190434-67-4
 CMF C16 H22 O2



CM 2
 CRN 2628-17-3
 CMF C8 H8 O



L90 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:253087 HCAPLUS
 DN 136:286595
 TI Positive **resist** composition
 IN Uenishi, Kazuya
 PA Fuji Photo Film Co., Ltd., Japan
 SO Eur. Pat. Appl., 91 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

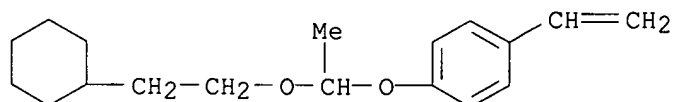
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1193556	A1	20020403	EP 2001-120747	20010906 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002058206	A1	20020516	US 2001-945747	20010905 <--

JP 2002169294 A2 20020614 JP 2001-268992 20010905 <--
 PRAI JP 2000-270158 A 20000906 <--
 JP 2000-290563 A 20000925 <--
 OS MARPAT 136:286595
 AB A pos. electron composition comprises: (a) a compound capable of generating an acid upon irradiation with a radiation; (b) a compound having a cationically polymerizable function; and (c) a solvent mixture containing at least one solvent selected from Group (A): propylene glycol monoalkyl ether carboxylate; and at least one solvent selected from Group (B): propylene glycol monoalkyl ether, alkyl lactate, an acetic ester, a chain ketone and an alkyl alkoxypropionate; and Group (C): γ -butyrolactone, an ethylene carbonate and a propylene carbonate. The object of the present invention is to provide a pos. chemical amplification type **resist** composition for electron beam or x-ray, which is satisfied in the properties regarding sensitivity and resolution for electron beam or x-ray used, rectangular **resist** profile, PCD stability, PED stability, development defect, coatability and solvent solubility
 IT **288620-13-3**
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (binder; electron beam and x-ray pos. **resist** composition containing)
 RN 288620-13-3 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

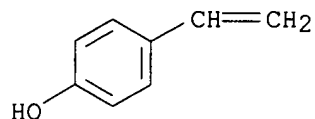
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Fuji Photo Film Co Ltd	1998			EP 0869393 A	HCAPLUS
Japan Synthetic Rubber	1995			EP 0634696 A	HCAPLUS
Taiyo Ink Seizo Kk	1999			JP 11286535 A	HCAPLUS
Watanabe, S	2000			US 6114462 A	HCAPLUS

L90 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:131256 HCAPLUS
 DN 136:191691
 TI Steroid-structured carboxylic acids-generating onium salts and positive-working **photoresists** containing such photoacid generators
 IN Kodama, Kunihiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 53 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2002055442	A2	20020220	JP 2000-240060	20000808 <--
PRAI	JP 2000-240060		20000808	<--	
OS	MARPAT 136:191691				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

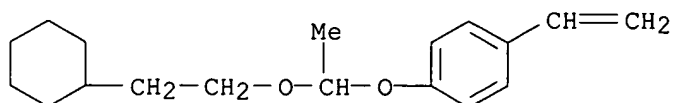
AB Pos. **photoresists** containing (A) compds. generating strong acid on irradiation, (B) acid-dissociating alkaline developing polymers, and (C) compds. generating steroid-structured carboxylic acids on irradiation are claimed. Optionally, the compns. also contain (D) dissoln. inhibitors of mol. weight ≤ 3000 and having acid-dissociating groups and showing increased solubility in alkaline developer and may furthermore contain (E) water-soluble alkaline-developing polymers. Sulfonium salts I and II and iodonium salt III (R1-37 = H, C1-4 linear or branched alkyl, C3-8 cyclic alkyl, C1-4 alkoxy, hydroxy, halogen, SR38; R38 = C1-12 linear or branched alkyl, C3-8 cyclic alkyl, C6-14 aryl; X- = carboxylic acid anion having steroid structure) are also claimed. Preferably, the stated onium salts are used as component (C) in the claimed composition. The compns. show high resolution and wide allowance to exposure margin and depth of focus.

IT **288620-13-3P**
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (steroid-structured acid-generating onium compds. in pos. **photoresists** showing high resolution)

RN 288620-13-3 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

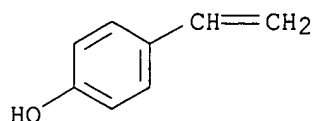
CRN 288620-12-2
 CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:119604 HCAPLUS

DN 136:191686

TI Electron beam or x-ray **resist** composition containing sulfonate salt photoacid generator

IN Kodama, Kunihiro; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002049155	A2	20020215	JP 2000-233216	20000801 <--
PRAI	JP 2000-233216		20000801	<--	

OS MARPAT 136:191686

AB The composition contains (A) ≥ 1 N-hydroxyimide sulfonate esters and ≥ 1 onium sulfonate salts selected from sulfonium sulfonates and iodonium sulfonates as acid generators by electron beam or x-ray radiation and (B) base polymers selected from (1) polymers having acid-degradable groups to increase alkali developability for pos. working, (2) low-mol.-weight dissoln. inhibitors with mol. weight ≤ 3000 having acid-degradable group to increase dissoln. speed in alkali developeres by acids and water-insol. and alkali-developable polymers for pos. working, and (3) water-insol. and alkali-developable polymers and acid-catalytic crosslinking agents for neg. working. The composition shows high sensitivity and gives high-resolution **resist** patterns with good post-coating delay (PCD) stability.

IT 288620-13-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (electron beam or x-ray **resist** composition containing sulfonate salt photoacid generator)

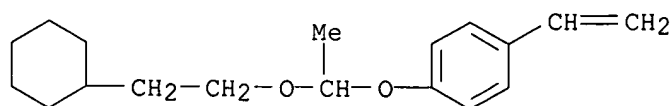
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

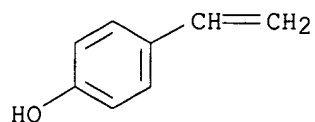
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:21787 HCAPLUS

DN 136:93483

TI Positive-working **resist** composition

IN Kodama, Kunihiko; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002006480	A2	20020109	JP 2000-188077	20000622 <--
PRAI	JP 2000-188077		20000622	<--	
OS	MARPAT 136:93483				

AB The pos.-working **resist** composition comprises (a) a resin which decomp. upon contacting an acid, resulting in increasing its solubility in an alkali developer, (b1) ≥ 1 photoacid having ≥ 2 sulfonium cation structure, and (b2) ≥ 1 photoacid having a bis(sulfonyl)diazomethane structure. The title composition increased the solubility

discrimination between exposed and nonexposed areas.

IT **199432-81-0P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin; resins and photoacids contained in pos.-working **resist** composition)

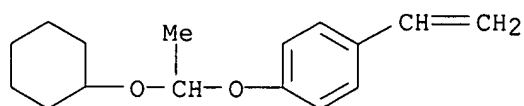
RN 199432-81-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

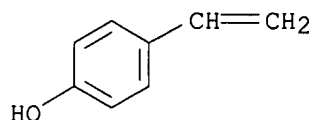
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:933854 HCAPLUS

DN 136:61527

TI Positive-working light-sensitive composition for fabricating
photoresist used in thermal flow process

IN Fujimori, Toru; Tan, Shiro; Yamanaka, Tsukasa

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001356479	A2	20011226	JP 2000-175639	20000612 <--
PRAI	JP 2000-175639		20000612	<--	

AB The title composition contains an actinic ray- or radiation-sensitive acid generator and a resin or a resin mixture increasing solubility in an alkali developer by reacting with an acid. The composition is suitable use in a thermal flow process.

IT **383190-92-9**

RL: TEM (Technical or engineered material use); USES (Uses)
(resin becoming alkali developer soluble in pos.-working light-sensitive composition)

RN 383190-92-9 HCAPLUS

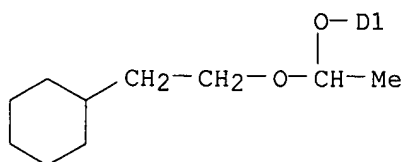
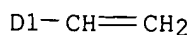
CN Phenol, ethenyl-, polymer with [1-(2-cyclohexylethoxy)ethoxy]ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 383190-91-8

CMF C18 H26 O2

CCI IDS



CM 2

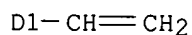
CRN 31257-96-2

CMF C8 H8 O

CCI IDS



D1-OH



L90 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:817219 HCAPLUS
 DN 135:350570
 TI Chemically amplified positive **resist** compositions with improved
 resolution, pattern profile and focal latitude for deep UV lithography
 IN Ohsawa, Youichi; Watanabe, Jun; Takeda, Takanobu; Seki, Akihiro
 PA Shin-Etsu Chemical Co., Ltd., Japan
 SO U.S. Pat. Appl. Publ., 33 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001038971	A1	20011108	US 2001-799052	20010306 <--
	US 6682869	B2	20040127		
	JP 2001324813	A2	20011122	JP 2001-57719	20010302 <--
	TW 538312	B	20030621	TW 2001-90105205	20010306 <--
PRAI	JP 2000-61350	A	20000307	<--	

AB A chemical amplified, pos. **resist** composition is provided comprising (A) a photoacid generator and (B) a resin which changes its solubility in an alkali developer under the action of acid and has substituents of the formula: $\text{Ph}-(\text{CH}_2)_n\text{OCH}(\text{CH}_2\text{CH}_3)-$ ($n = 0,1$). The composition has many advantages including improved focal latitude, improved resolution, minimized line width variation or shape degradation even on long-term PED, minimized defect left after coating, development and stripping, and improved pattern profile after development and is suited for microfabrication by any lithog., especially deep UV lithog.

IT **362479-00-3D**, 1,4-Butane diol divinyl ether-p-hydroxystyrene copolymer, 1-phenethyloxypentyl derivs.
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (chemical amplified pos. **resist** compns. with improved resolution, pattern profile and focal latitude for deep UV lithog.)

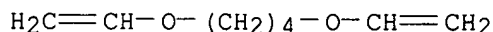
RN 362479-00-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

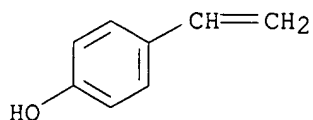
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:781404 HCAPLUS

DN 135:336907

TI Chemically amplified positive **resist** compositions with improved resolution, pattern profile and focal latitude for deep UV lithography

IN Ohsawa, Youichi; Watanabe, Jun; Takeda, Takanobu; Seki, Akihiro

PA Shi-Etsu Chemical Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 34 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001033994	A1	20011025	US 2001-799009	20010306 <--
	US 6838224	B2	20050104		
	JP 2001324812	A2	20011122	JP 2001-57716	20010302 <--
	TW 587086	B	20040511	TW 2001-90105203	20010306 <--

PRAI JP 2000-61357 A 20000307 <--

AB A chemical amplified, pos. **resist** composition is provided comprising (A) a photoacid generator and (B) a resin which changes its solubility in an alkali developer under the action of acid and has substituents of the formula: C₆H₁₁ -(CH₂)_nOCH(CH₂CH₃)- wherein C₆H₁₁ is cyclohexyl and n = 0,1. The composition has many advantages including improved focal latitude, improved resolution, minimized line width variation or shape degradation even on long-term

PED, minimized defect left after coating, development and stripping, and improved pattern profile after development and is suited for microfabrication by any lithog., especially deep UV lithog.

IT **362479-00-3D**, 1,4-Butane diol divinyl ether-p-hydroxystyrene copolymer, cyclohexylmethyloxypropyl derivs.

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(chemical amplified pos. **resist** compns. with improved resolution, pattern profile and focal latitude for deep UV lithog.)

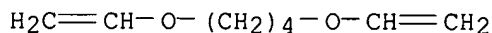
RN 362479-00-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

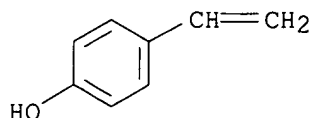
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1988			JP 6327829	
Anon	1990			JP 227660	
Anon	1993			JP 5249682	
Anon	1994			JP 6308437	
Anon	1996			JP 8123032	
Anon	2000			JP 2000235264	HCAPLUS
Anon				English abstract of	
Anon				English abstract of	
Anon	2000			Machine-assisted Eng	
Carnahan	2002			US 6344529 B1	HCAPLUS
Ito	1985			US 4491628 A	HCAPLUS
Urano	1995			US 5468589 A	HCAPLUS
Urano	1996			US 5558971 A	HCAPLUS

Urano	1996		US 5558976 A	HCAPLUS
Urano	1997		US 5670299 A	HCAPLUS
Urano	2000		US 6033826 A	HCAPLUS
Watanabe	2000		US 6022665 A	HCAPLUS

L90 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:763485 HCAPLUS

DN 135:310937

TI Chemical amplification **resist** compositions

IN Takeda, Takanobu; Watanabe, Osamu; Hirahara, Kazuhiro; Takemura, Katsuya; Kusaki, Wataru; Seki, Akihiro

PA Shin-Etsu Chemical Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001031421	A1	20011018	US 2001-800512	20010308 <--
	US 6737214	B2	20040518		
	JP 2001324814	A2	20011122	JP 2001-59519	20010305 <--
	TW 538088	B	20030621	TW 2001-90105442	20010308 <--
PRAI	JP 2000-64277	A	20000309	<--	

AB A chemical amplification pos. **resist** composition comprises a polymeric mixture of a polyhydroxystyrene derivative having a mol. weight of 1000-500,000 and a copolymer of hydroxystyrene and (meth)acrylate having a mol. weight of 1000-500,000, as a base resin, has improved dry etching **resistance**, high sensitivity, high resolution, and process adaptability, and is suppressed in the slimming of pattern films after development with aqueous base.

IT **362479-00-3D**, 1,4-Butanediol divinyl ether-p-hydroxystyrene copolymer, ethoxyethyl ether
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (chemical amplification **resist** compns. containing)

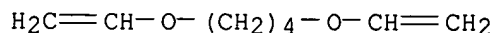
RN 362479-00-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

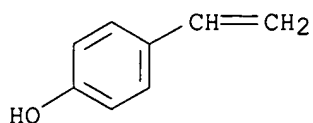
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:709843 HCAPLUS

DN 135:264558

TI Chemically amplified positive **resist** composition and patterning method

IN Takeda, Takanobu; Watanabe, Jun; Takemura, Katsuya; Koizumi, Kenji

PA Shin-Etsu Chemical Co., Ltd., Japan

SO Eur. Pat. Appl., 60 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1136885	A1	20010926	EP 2001-302636	20010321 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001337457	A2	20011207	JP 2001-75477	20010316 <--
	TW 228203	B1	20050221	TW 2001-90106640	20010321 <--
	US 2001035394	A1	20011101	US 2001-814049	20010322 <--
	US 6593056	B2	20030715		
PRAI	JP 2000-79414	A	20000322	<--	

AB A chemical amplified, pos. **resist** composition comprises (1) organic solvent, (2) polymer having acid labile groups, (3) photoacid generator, (4) basic compound, and (5) compound containing at least two allyloxy groups of R1R2C=CR3CHR40 (R1,4 = H, C1-12 alkyl; R1 and R3, or R2 and R3 may form a ring) in a mol. The **resist** composition has a high sensitivity, resolution, dry etching **resistance** and process adaptability, and is improved in the slimming of a pattern film after development with an aqueous base solution. The **resist** composition is also applicable to the thermal flow process suited for forming a microsize contact hole pattern for the fabrication of VLSI.

IT 362479-00-3D, ethoxypropyl ether or ethoxyethyl ether

RL: TEM (Technical or engineered material use); USES (Uses)

(chemical amplified pos. **resist** composition containing)

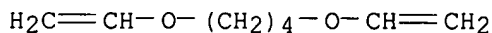
RN 362479-00-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

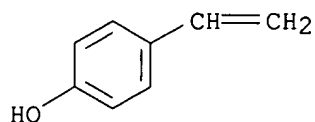
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Imai, G	1996			US 5496678 A	HCAPLUS
Japan Synthetic Rubber	1993			EP 0562819 A	HCAPLUS
Shinetsu Chemical Co	2000			EP 1039346 A	HCAPLUS
Shinetsu Chemical Co	2001			EP 1077391 A	HCAPLUS
Shinetsu Chemical Co	2001			EP 1099983 A	HCAPLUS
Watanabe, O	1999			US 5942367 A	HCAPLUS

L90 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:98663 HCAPLUS

DN 134:170820

TI Positive-working silicone-containing photosensitive compositions

IN Yasunami, Shoichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001033974	A2	20010209	JP 1999-202179	19990715 <--
PRAI	JP 1999-202179		19990715	<--	

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compns. contain (a) alkaline-soluble and water-insol. polymer comprising of I

and/or II (X = COR, CH(OH)R, carboxyl; R = H, (un)substituted hydrocarbon; R1-5 = OH, (un)substituted (cyclo)alkyl, alkoxy, alkenyl, aralkyl, Ph; Y = alkyl, alkoxy, siloxyl, R0 = H, halogen, (un)substituted aliphatic or aromatic hydrocarbon; l, m, n, q = 0, pos. number; p = pos. number), (b) compds. generating acid on irradiation of active ray or radiant ray, (c) polymers containing acid-decomposable groups and showing increase of solubility to alkaline

developer on reaction with acid, and (d) Si-containing nonpolymeric compound containing acid-decomposable groups and showing increase of solubility to alkaline

developer on reaction with acid. Far UV **photoresists** with high sensitivity and resolution are obtained.

IT 288620-13-3

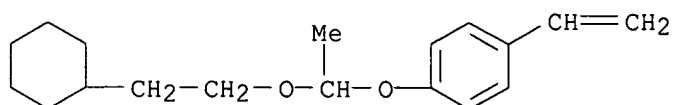
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working silicon-containing **photoresists** for micropattern formation in semiconductor device fabrication)

RN 288620-13-3 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

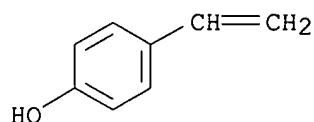
CMF C18 H26 O2



CM 2

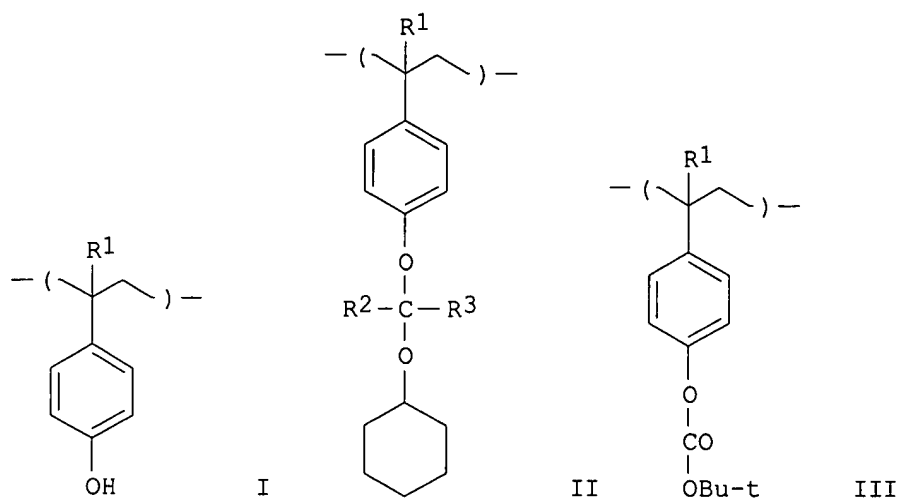
CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:624804 HCAPLUS
 DN 133:230379
 TI Radiation-sensitive chemically amplified positive-working **resist**
 resin composition
 IN Kobayashi, Eiichi; Yokoyama, Kenichi; Nishimura, Yukio
 PA JSR Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000241980	A2	20000908	JP 1999-362868	19991221 <--
	KR 2000048272	A	20000725	KR 1999-59559	19991221 <--
	SG 81342	A1	20010619	SG 1999-6524	19991222 <--
	TW 224240	B1	20041121	TW 1999-88122674	19991222 <--
PRAI	JP 1998-364905	A	19981222	<--	
GI					



AB The radiation-sensitive chemical amplified pos.-working **resist** resin composition contains a copolymer having repeating unit I (R1 = H, methyl) and II (R1-2 = H, methyl; R3 = Me, ethyl), a copolymer having repeating unit III (R1 = H, methyl), and a photoacid generator. The addition of the resins to the composition provides the excellent sensitivity, resolution, and pattern shapes.

IT **199432-81-0P 291282-95-6P 291282-96-7P**

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(radiation-sensitive chemical amplified pos.-working **resist** resin composition)

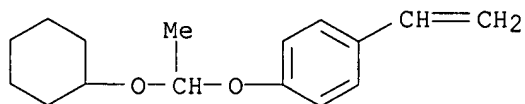
RN 199432-81-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

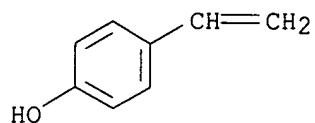
CMF C16 H22 O2



CM 2

CRN 2628-17-3

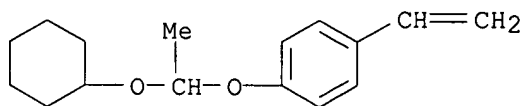
CMF C8 H8 O



RN 291282-95-6 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-(1-ethoxyethoxy)benzene (9CI) (CA INDEX NAME)

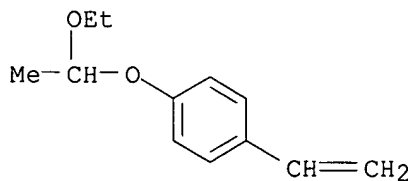
CM 1

CRN 190434-67-4
 CMF C16 H22 O2



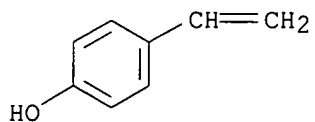
CM 2

CRN 157057-20-0
 CMF C12 H16 O2



CM 3

CRN 2628-17-3
 CMF C8 H8 O

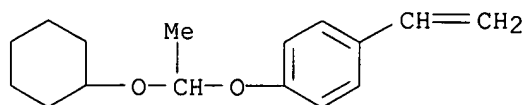


RN 291282-96-7 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

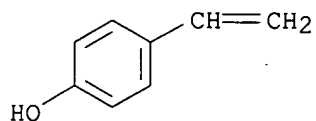
CMF C16 H22 O2



CM 2

CRN 2628-17-3

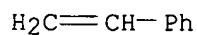
CMF C8 H8 O



CM 3

CRN 100-42-5

CMF C8 H8



L90 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:600540 HCAPLUS
 DN 133:215450
 TI Positive-working photosensitive composition containing silicone
 IN Sakaguchi, Shinji
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 49 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000235264	A2	20000829	JP 1999-143614	19990524 <--
	KR 2000048128	A	20000725	KR 1999-57459	19991214 <--
	TW 530190	B	20030501	TW 1999-88121897	19991214 <--
PRAI	JP 1998-354878	A	19981214	<--	
	JP 1999-143614	A	19990524	<--	

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a pos.-working photosensitive composition containing;
 (a)

a water-insol. and alkali-soluble polymer having repeating unit I or II(X = -C=O, H, hydrocarbon, etc.; R'-'-'-' = OH, alkyl, cycloaralkyl, etc.; R0 = H, halo, hydrocarbon; r, s, t = 1-3 integer; u, v = 1, 2; l, m, n, q ≥ 0 integer; p>0 integer; R α - γ = single bond, -(CH₂)_k-(Z α)-R δ ; Z α = -COC-, -O-, -N(R ϵ)-; R δ = single bond, C1-12 alkylene; arylene, aralkyl; R ϵ = H, C1-10 alkyl; k = ≥ 0 integer; j = 0, 1); (b) a compound generating an acid upon irradiation of actinic or radioactive ray; and (c) an polymer, which increases the solubility towards an alkali developer at the presence of an acid, having repeating unit -(C(R1)(R2)-C(R3)(R4-(G)f))_a-, -(C(R5)(R6)-C(R7)(R8-(Q)g))_b- (R1-3,5-7,9-11 = H, halo, alkyl, etc.; R4,9 =single bond, 2-5 valent specific aryl, amide group) and -(C(R9)(R10)-C(R11)(R12))_c- and acid-sensitive group, and (d) a nitrogen containing cyclic compound and/or an aliphatic amine having a carboxylic substituent. The composition provides the high sensitivity and the high resolution and is suitable for use in a semiconductor device production

IT 288620-13-3 289706-83-8

RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photosensitive composition)

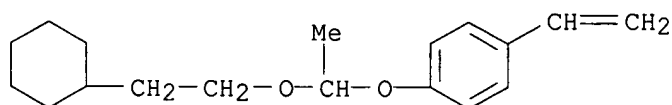
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

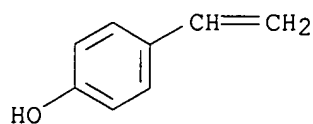
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



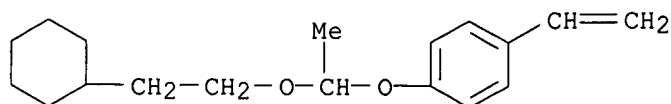
RN 289706-83-8 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

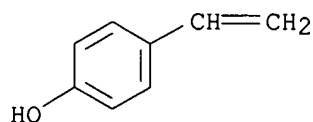
CMF C18 H26 O2



CM 2

CRN 2628-17-3

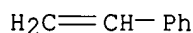
CMF C8 H8 O



CM 3

CRN 100-42-5

CMF C8 H8



L90 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:585595 HCAPLUS
 DN 133:200845
 TI Positive photosensitive compositions containing silicone
 IN Aha, Shoichiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000231195	A2	20000822	JP 1999-31591	19990209 <--
	US 6270941	B1	20010807	US 2000-493285	20000128 <--
PRAI	JP 1999-20224	A	19990128	<--	
	JP 1999-31591	A	19990209	<--	
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compns. comprise (a) siloxanes I and/or silsesquioxanes II [X = C(O)R, CH(OH)R, carboxyl; R = H, hydrocarbon; R1-5 = OH, (un)substituted alkyl, cycloalkyl, alkoxy, alkenyl, aralkyl, phenyl; Y = allyl, alkoxy, siloxy; R0 = H, halogen, (un)substituted aliphatic or aromatic hydrocarbon; l, m, n, q

0, integer; p = integer] that are insol. in water and soluble in alkali, (b) compds. generating acid by irradiation of active beam or radiation, and (c) acid-decomposable group-containing polymers having structural repeating units II [R11-13, R15-17 = H, halogen, C(O)ZR113, (un)substituted alkyl, aralkyl, alkoxy; Z = single bond, O, NH, etc.; R14, R18 = (CH₂)_dA, COZR115A; A = (un)substituted mono- to tetravalent phenyl] which increases its solubility into alkaline developing agents in the presence of acids. Fine

line patterns are formed by irradiation under far UV. The compns. are suitable for semiconductor device fabrication.

IT 288620-13-3

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polysilicones and/or silsesquioxane pos. **photoresists** for fabrication of semiconductor devices with ultrafine line patterns)

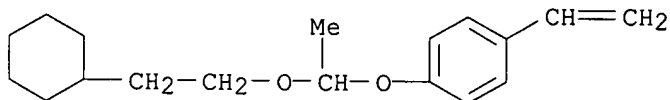
RN 288620-13-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

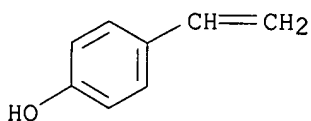
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:534910 HCAPLUS

DN 133:157678

TI **Resist** composition

IN Urano, Fumiyoshi; Fujie, Hirotooshi; Takeyama, Naoki; Ichikawa, Koji

PA Wako Pure Chemical Industries, Ltd, Japan; Sumitomo Chemical Co., Ltd.

SO Eur. Pat. Appl., 99 pp.

CODEN: EPXXDW

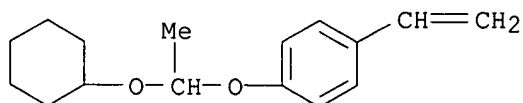
DT Patent

LA English

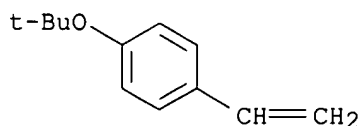
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1024406	A1	20000802	EP 2000-300581	20000126 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

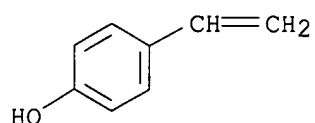
IE, SI, LT, LV, FI, RO
 JP 2000284482 A2 20001013 JP 2000-15401 20000125 <--
 JP 3757731 B2 20060322
 US 6656660 B1 20031202 US 2000-492389 20000127 <--
 PRAI JP 1999-20450 A 19990128 <--
 OS MARPAT 133:157678
 AB The invention relates to a **resist** composition used in production of semiconductor elements, etc., and to a **resist** composition used in formation of a pos. type pattern using deep UV light having 300 nm or lower wavelength, e. g., KrF excimer light as an exposure energy source. A **resist** composition comprising (a) ≥ 2 kinds of polymers which become alkali-soluble by the action of an acid, (b) as a photoacid generator, a combination of an alkyl-sulfonyl diazomethane compound and a triaryl-sulfonium aryl-sulfonate compound or a diaryl-iodonium aryl-sulfonate compound, and (c) a solvent is excellent as a chemical amplified **resist** composition to give excellent pattern shape and very fine line-and-space, particularly when exposed to lights having a wavelength of 300 nm or less.
 IT **192314-56-0P**
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of polymer for **photoresist** composition for KrF laser and UV light exposure)
 RN 192314-56-0 HCAPLUS
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-(1,1-dimethylethoxy)-4-ethenylbenzene (9CI) (CA INDEX NAME)
 CM 1
 CRN 190434-67-4
 CMF C16 H22 O2



CM 2
 CRN 95418-58-9
 CMF C12 H16 O



CM 3
 CRN 2628-17-3
 CMF C8 H8 O



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Olin Microelectronic Ch	1998			EP 0819982 A	HCAPLUS
Shin-Etsu Chemical Co L	1999			EP 0908473 A	HCAPLUS
Shin-Etsu Chemical Co L	1999			EP 0908783 A	HCAPLUS
Sumitomo Chemical Compa	1999			EP 0955563 A	HCAPLUS
Tokyo Okha Kogyo Co Ltd	1998			US 5817444 A	HCAPLUS
Wako Pure Chemical Indu	1997			EP 0780732 A	HCAPLUS

L90 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:143361 HCAPLUS

DN 132:187652

TI Positive-working **photoresist** composition

IN Fujinomori, Akira; Tan, Shiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 41 pp.

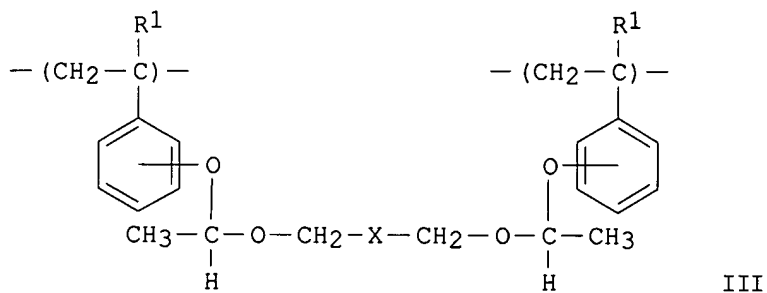
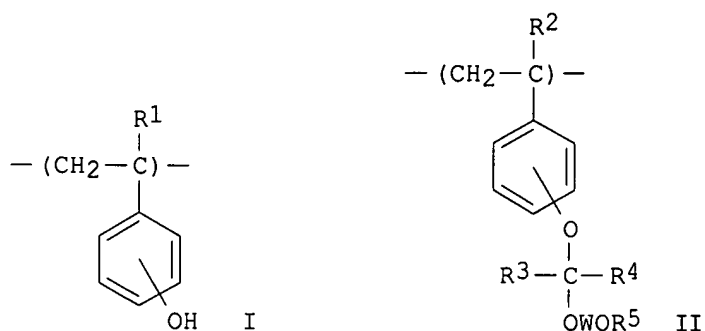
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000066400	A2	20000303	JP 1998-234339	19980820 <--
PRAI	JP 1998-234339		19980820	<--	
OS	MARPAT 132:187652				
GI					



AB The pos.-working **photoresist** composition comprises a copolymer having structural units of I-III (R^{1,2} = H, C₁₋₃ alkyl; R^{3,4} = H, C₁₋₄ alkyl; R⁵ = C₁₁₋₂₀ alkyl; X, W = divalent organic group), a photoacid, and a solvent. This **photoresist** composition showed excellent dry-etching **resistance**.

IT 259655-61-3P

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(pos.-working **photoresist** composition containing)

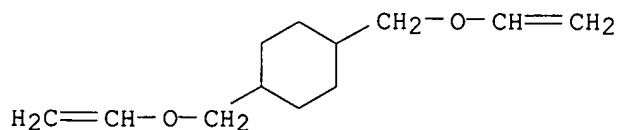
RN 259655-61-3 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis[(ethenyloxy)methyl]cyclohexane and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 17351-75-6

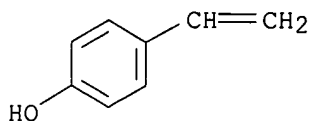
CMF C12 H20 O2



CM 2

CRN 2628-17-3

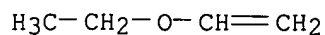
CMF C8 H8 O



CM 3

CRN 109-92-2

CMF C4 H8 O



L90 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1998:231236 HCAPLUS
 DN 128:328771
 TI Positive-type **photoresist** compositions
 IN Uenishi, Kazuya; Sakaguchi, Shinji; Fujinomori, Akira
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 58 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10097075	A2	19980414	JP 1997-125686	19970515 <--
	TW 505827	B	20021011	TW 1997-86107682	19970604 <--
PRAI	JP 1996-146180	A	19960607	<--	
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compns. comprise (A) CH₂:C(R_x)C₆H₄OH copolymer with CH₂:C(R_x)C₆H₄OC(R_a)(R_b)OR_c and/or the copolymers containing -C(R_d)(R_e)ORfOC(R_g)(R_h)- crosslinking groups, (B) compds. generating acids upon irradiation of active light or radiation, and (C) I or II, wherein R_x = H, Me; R_a, R_b, R_d, R_e, R_g, R_h = H, C1-8 alkyl, C3-6 cycloalkyl; R_c = C1-8 alkyl, C3-6 cycloalkyl, Q1; R_f = C1-6 alkylene, C3-6 cycloalkylene, Q2; R_i, R_j = H, C1-6 alkyl, C3-6 cycloalkylene; 1 + m = 100; m/(1 + m) = 0.05-0.90; A = H, OH; E, G = Q3; R1-4 = H, XR13, halogen; R5, R6 = H, Me, Et, C1-2 haloalkyl; a-f, k-n = 0-3; g-j = 0-2; p = 1-3; D = direct bond, CO, S, SO₂, CR5R6, -C(R5)(R6)C₆H₄C(R5)(R6)-; R8-12 = H, OH, CN, CO₂H, XR13; R13 = C1-8 alkyl; X = direct bond, O, S, CO, O₂C.

IT **199432-81-0**
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (pos.-type **photoresist** compns.)

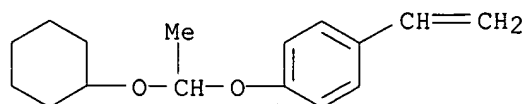
RN 199432-81-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

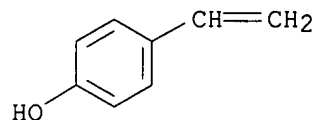
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:720180 HCAPLUS

DN 128:28627

TI Positive-working photosensitive composition

IN Kodama, Kunihiro; Aoai, Toshiaki; Uenishi, Kazuya

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 83 pp.

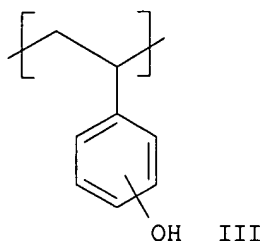
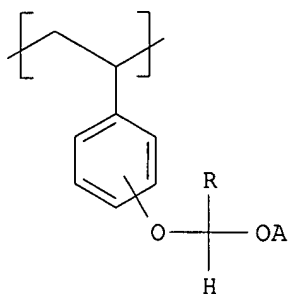
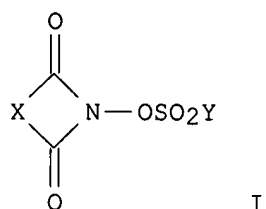
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 803775	A1	19971029	EP 1997-106841	19970424 <--
	EP 803775	B1	20020807		
	R: BE, DE, GB				
	TW 482943	B	20020411	TW 1997-86105379	19970424 <--
	JP 11002901	A2	19990106	JP 1997-109526	19970425 <--
	US 5891603	A	19990406	US 1997-840629	19970425 <--
PRAI	JP 1996-105635	A	19960425	<--	
	JP 1996-171327	A	19960701	<--	
	JP 1997-101924	A	19970418	<--	
OS	MARPAT 128:28627				
GI					



AB Provided is a pos.-working photosensitive composition useful for lithog. plate and semiconductor device manufacture comprising (a) a compound represented by the

formula I which generates a sulfonic acid by irradiation with active rays and (b) a resin comprising constitutional repeating units of the formulas II or III and having groups which enable an increase of the solubility in an alkali developer through their decomposition due to the action of an acid wherein Y represents an alkyl group, an aralkyl group, or a specific Ph, naphthyl, or anthracenyl group and Y may be bonded to the other imidesulfonate compound residue, X represents an alkylene group, an alkenylene group, an arylene group, or an aralkylene group and X may be bonded to the other imidesulfonate compound residue, R represents a hydrogen atom, an alkyl group, or an aralkyl group, and A represents an alkyl group or an aralkyl group and A may combine with R to complete a 5- or 6-membered ring.

IT **199432-81-0P**, p-(1-Cyclohexyloxyethoxy)styrene-p-hydroxystyrene copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in pos. **photoresists** containing oxime sulfonate photoacid generators)

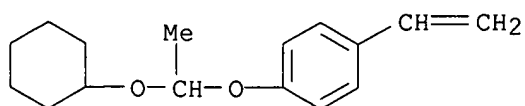
RN 199432-81-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

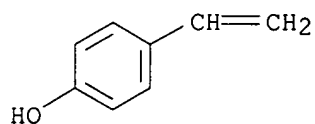
CMF C16 H22 O2



CM 2

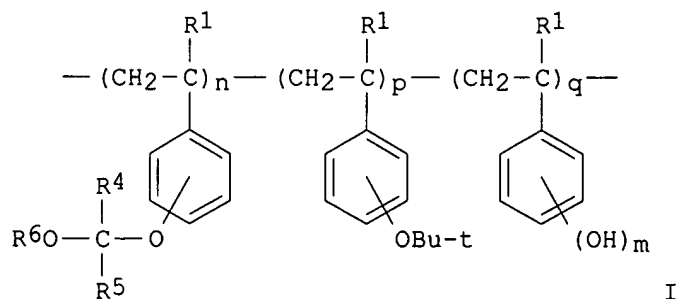
CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:479313 HCAPLUS
 DN 127:115290
 TI Chemically amplification-type positive-working **resist**
 composition
 IN Watanabe, Osamu; Natakeyama, Jun; Nakura, Shigehiro; Ishihara, Toshinobu
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09160246	A2	19970620	JP 1995-337899	19951201 <--
	JP 3052815	B2	20000619		
PRAI	JP 1995-337899		19951201	<--	
OS	MARPAT 127:115290				
GI					



AB The title composition comprises (A) an organic solvent, (B) a polymer with structural repeating units I [R1 = H, Me; R4, R5 = H, C1-6 alkyl; R6 = C1-10 alkyl; m = 1-3; n, p, q = d.p. satisfying following relations: 0.02 ≤ p/(p+q+r) ≤ 0.5, 0.01 ≤ q/(p+q+r) ≤ 0.3, 0 <

(p+q)/(p+q+r) \leq 0.8] with a weight average mol. weight of 3,000-300,000, (C) an acid generator, and (D) a solubility-controlling agent (11 Markush structures are given) with a weight average mol. weight of 100-1,000 and containing

substituted phenolic groups. The composition suitable for manufacturing LSIs shows

high sensitivity towards high energy rays.

IT **192314-56-0P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplification-type pos.-working **resist** composition)

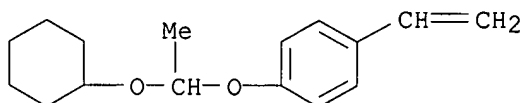
RN 192314-56-0 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-(1,1-dimethylethoxy)-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

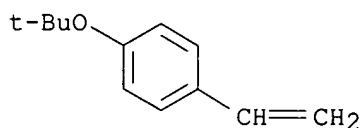
CMF C16 H22 O2



CM 2

CRN 95418-58-9

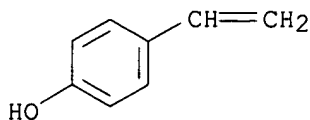
CMF C12 H16 O



CM 3

CRN 2628-17-3

CMF C8 H8 O



L90 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:67471 HCAPLUS

DN 124:216089

TI Visible light-reactive resin composition and sheet-type optical recording

material

IN Hosoda, Yukio; Myata, Tadakazu
 PA Shinoji Seishi Kk, Japan
 SO Jpn. Kokai Tokkyo Koho, 123 pp.

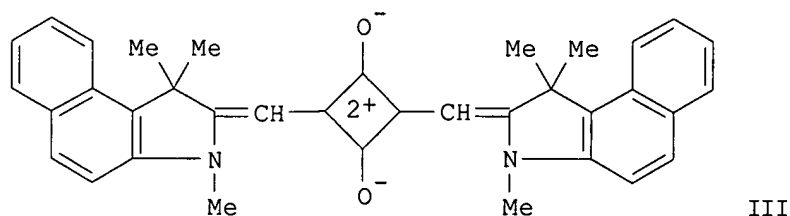
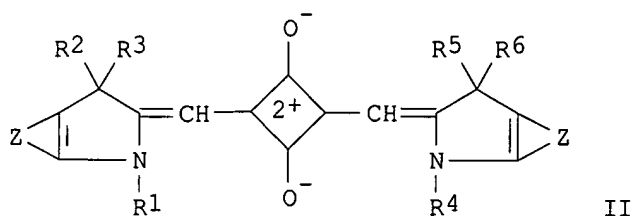
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07287393	A2	19951031	JP 1994-76911	19940415 <--
PRAI	JP 1994-76911		19940415	<--	
GI					



AB The title resin composition contains (a) ≥ 1 selected from (co)polymers with weight average mol. weight (Mw) ≥ 4000 of p-vinylphenol, (b) ≥ 1 cation-reactive compound selected from vinyl ether and amide compds., (c) 2,4,6-tris(trichloromethyl)-1,3,5-triazine (I), and (d) a squarylium salt-type sensitizer II [R1-6 = saturated or unsatd. hydrocarbon group; Z = hydrocarbon group which is condensed with the pyrrole ring to form an aromatic cyclic structure]. The optical material comprises a sheet substrate coated with a photosensitive layer containing the composition and a binder.

The

composition reacts quickly by irradiation with visible semiconductor laser beams to

form images. Thus, a photosensitive resin composition comprised Maruka Lyncur M-S 3 [poly(p-vinylphenol); Mw 8300], n-butyl ether, Cymel 300, I, and NK-3380 (III).

IT 174459-19-9

RL: DEV (Device component use); USES (Uses)

(visible light-reactive resin composition and recording material using it)

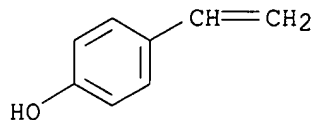
RN 174459-19-9 HCAPLUS

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)cyclohexane (9CI) (CA INDEX NAME)

CM 1

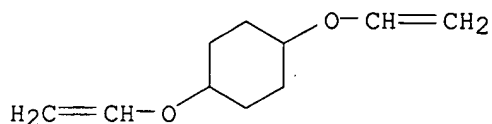
CRN 2628-17-3

CMF C8 H8 O



CM 2

CRN 706-13-8
CMF C10 H16 O2



=> => fil uspatful

FILE 'USPATFULL' ENTERED AT 13:14:41 ON 11 SEP 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 7 Sep 2006 (20060907/PD)

FILE LAST UPDATED: 7 Sep 2006 (20060907/ED)

HIGHEST GRANTED PATENT NUMBER: US7103915

HIGHEST APPLICATION PUBLICATION NUMBER: US2006200885

CA INDEXING IS CURRENT THROUGH 5 Sep 2006 (20060905/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Sep 2006 (20060907/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2006

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2006

=> d bib abs hitstr tot 165

L65 ANSWER 1 OF 2 USPATFULL on STN

AN 2006:3803 USPATFULL

TI Chemical amplified positive photo resist composition and method for forming resist pattern

IN Nakagawa, Yusuke, Kawasaki-shi, JAPAN

Hidesaka, Shinichi, Kawasaki-shi, JAPAN

Maruyama, Kenji, Kawasaki-shi, JAPAN**Shimatani, Satoshi**, Kawasaki-shi, JAPAN**Masujima, Masahiro**, Kawasaki-shi, JAPAN**Nitta, Kazuyuki**, Kawasaki-shi, JAPAN

PI US 2006003260 A1 20060105

AI US 2003-528617 A1 20040520 (10)

WO 2004-JP7206 20040520

20050321 PCT 371 date

PRAI JP 2003-144700 20030522

JP 2003-426503 20031224

DT Utility

FS APPLICATION

LREP KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614, US

jan delaval - 11 september 2006

CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1283

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB To provide a chemical amplification type positive photoresist composition, which has high sensitivity, high heat resistance and high resolution (high contrast) and is capable of suppressing an undulation phenomenon, and a method for formation of a resist pattern, a chemical amplification type positive photoresist composition comprising (A) an alkali soluble resin comprising a hydroxystyrene constituent unit (a1) and a styrene constituent unit (a2), (B) a crosslinking agent, (C) a photo acid generator, and an organic solvent is prepared and a resist pattern is formed by using the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

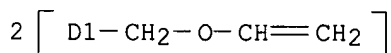
IT **803688-38-2P**, Hydroxystyrene-styrene-cyclohexanedimethanol
divinyl ether copolymer **803688-39-3P**
(pos. photoresist composition containing acid generator and)

RN 803688-38-2 USPATFULL

CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane and
ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 130668-21-2
CMF C12 H20 O2
CCI IDS
CDES 8:ID



CM 2

CRN 31257-96-2
CMF C8 H8 O
CCI IDS
CDES 8:ID



D1-OH

D1-CH=CH₂

CM 3

CRN 100-42-5

CMF C8 H8

H₂C=CH-Ph

RN 803688-39-3 USPATFULL

CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2

CCI IDS

CDES 8:ID



2 [D1-CH₂-O-CH=CH₂]

CM 2

CRN 31257-96-2

CMF C8 H8 O

CCI IDS

CDES 8:ID



D1-OH

D1-CH=CH₂

L65 ANSWER 2 OF 2 USPATFULL on STN
 AN 2005:280793 USPATFULL
 TI Chemically amplified positive photo resist composition and method for forming resist pattern
 IN **Maruyama, Kenji**, Kawasaki-shi, JAPAN
 Kurihara, Masaki, Kawasaki-shi, JAPAN
 Miyagi, Ken, Kawasaki-shi, JAPAN
 Niikura, Satoshi, Kawasaki-shi, JAPAN
 Shimatani, Satoshi, Kawasaki-shi, JAPAN
 Masujima, Masahiro, Kawasaki-shi, JAPAN
 Nitta, Kazuyuki, Kawasaki-shi, JAPAN
 Yamaguchi, Toshihiro, Kawasaki-shi, JAPAN
 Doi, Kousuke, Kawasaki-shi, JAPAN
 PI US 2005244740 A1 20051103
 AI US 2003-522036 A1 20040519 (10)
 WO 2004-JP7139 20040519
 20050119 PCT 371 date
 PRAI JP 2003-141805 20030520
 JP 2003-426503 20031224
 DT Utility
 FS APPLICATION
 LREP KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR,
 IRVINE, CA, 92614, US
 CLMN Number of Claims: 22
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 2011

Pres. APP

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a chemical amplification type positive photoresist composition which is excellent in storage stability as a resist solution in a bottle. A novolak resin or a hydroxystyrenic resin is reacted with a crosslinking agent to give a slightly alkali-soluble or alkali-insoluble resin having such a property that solubility in an aqueous alkali solution is enhanced in the presence of an acid, which is then dissolved in an organic solvent, together with (B) a compound generating an acid under irradiation with radiation to obtain a chemical amplification type positive photoresist composition wherein the content of an acid component is 10 ppm or less.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **803688-38-2P**, Hydroxystyrene-styrene-cyclohexanedimethanol divinyl ether copolymer **803688-39-3P**
 (pos. photoresist composition containing acid generator and)
 RN 803688-38-2 USPATFULL
 CN Phenol, ethenyl-, polymer with bis[(ethenylloxy)methyl]cyclohexane and

ethenylbenzene (9CI) (CA INDEX NAME)

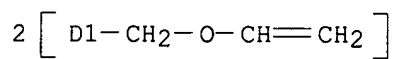
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CRN 130668-21-2

CMF C12 H20 O2

CCI IDS

CDES 8:ID



CM 2

CRN 31257-96-2

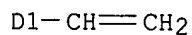
CMF C8 H8 O

CCI IDS

CDES 8:ID



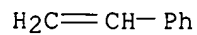
D1-OH



CM 3

CRN 100-42-5

CMF C8 H8



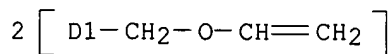
RN 803688-39-3 USPATFULL

CN Phenol, ethenyl-, polymer with bis[(ethenyloxy)methyl]cyclohexane (9CI)
(CA INDEX NAME)

CM 1

CRN 130668-21-2

CMF C12 H20 O2
 CCI IDS
 CDES 8:ID



CM 2
 CRN 31257-96-2
 CMF C8 H8 O
 CCI IDS
 CDES 8:ID



D1-OH

D1-CH=CH₂

=> d 195 bib abs hitstr tot

L95 ANSWER 1 OF 15 USPATFULL on STN
 AN 2006:174390 USPATFULL
 TI **Resist** composition
 IN Takahashi, Hyou, Shizuoka, JAPAN
 Yasunami, Shoichiro, Shizuoka, JAPAN
 Mizutani, Kazuyoshi, Shizuoka, JAPAN
 PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)
 PI US 2006147837 A1 ~~20060706~~
 AI US 2006-359424 A1 ~~20060223~~ (11)
 RLI Division of Ser. No. US 2003-606845, filed on 27 Jun 2003, PENDING
 PRAI JP 2002-190581 20020628 <--
 DT Utility
 FS APPLICATION
 LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800,
 WASHINGTON, DC, 20037, US
 CLMN Number of Claims: 14
 ECL Exemplary Claim: 1
 DRWN No Drawings

LN.CNT 1635

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The **resist** composition of the present invention, ensuring excellent pattern profile and excellent isolation performance for use in the pattern formation by the irradiation of actinic rays or radiation, particularly, electron beam, X ray or EUV light, which comprising (A) a compound having a specific partial structure and a counter ion, the compound generating an acid upon irradiation of actinic rays or radiation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3

(acid decomposable resin; resist composition showing excellent pattern profile and isolation performance)

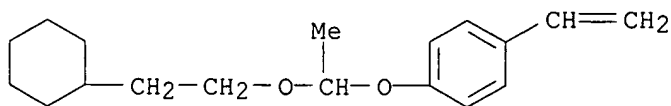
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

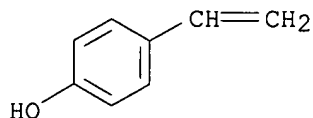
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 2 OF 15 USPATFULL on STN

AN 2004:227268 USPATFULL

TI Positive working **resist** composition

IN Yasunami, Shoichiro, Shizuoka, JAPAN

Shirakawa, Koji, Shizuoka, JAPAN

Mizutani, Kazuyoshi, Shizuoka, JAPAN

PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

PI US 2004175654 A1 20040909

AI US 2004-791559 A1 20040303 (10)

PRAI JP 2003-58732 20030305

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DT Utility

FS APPLICATION

LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800,
WASHINGTON, DC, 20037

CLMN Number of Claims: 8

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1254

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A positive working **resist** composition comprising (A1) a resin containing a repeating unit represented by formula (1) defined in the specification and a repeating unit represented by formula (2) defined in the specification and having a property of being insoluble or sparingly soluble in an alkali developing solution and becoming soluble in an alkali developing solution by the action of an acid, and (B) a compound capable of generating sulfonic acid upon irradiation with active rays or radiations in an amount of from 5 to 20% by weight based on the total solid content of the positive working **resist** composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3 754191-55-4

(resin; pos. working resist composition)

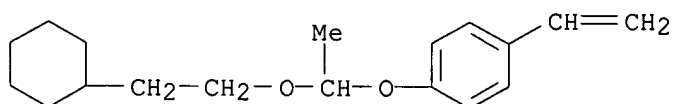
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

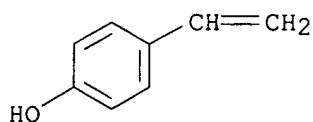
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



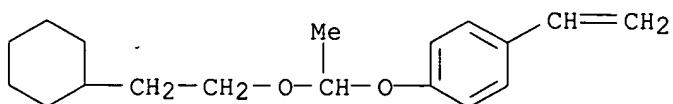
RN 754191-55-4 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene and 1-ethenyl-4-methoxybenzene (9CI) (CA INDEX NAME)

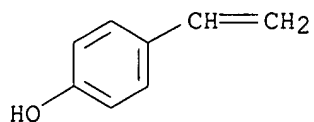
CM 1

CRN 288620-12-2

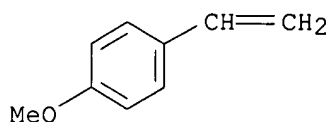
CMF C18 H26 O2



CM 2

CRN 2628-17-3
CMF C8 H8 O

CM 3

CRN 637-69-4
CMF C9 H10 O

L95 ANSWER 3 OF 15 USPATFULL on STN

AN 2004:76494 USPATFULL

TI **Resist** composition

IN Takahashi, Hyou, Shizuoka, JAPAN

Mizutani, Kazuyoshi, Shizuoka, JAPAN

Yasunami, Shoichiro, Shizuoka, JAPAN

PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

PI US 2004058272 A1 20040325

US 6902862 B2 20050607

AI US 2003-654942 A1 20030905 (10)

PRAI JP 2002-261401 20020906

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<--

DT Utility

FS APPLICATION

LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC,
20037

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1924

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A negative type **resist** composition comprising:

(A1) a compound generating a sulfonic acid upon irradiation with actinic rays or a radiation and having the specific formula,

(A2) a compound generating a sulfonic acid upon irradiation with actinic rays or a radiation and having the specific structure,

(B) an alkali-soluble resin, and

(C) a crosslinking agent capable of carrying out an addition reaction with the alkali-soluble resin which is the component (B) by the action

of an acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3

(alkali-soluble resin; resist composition containing)

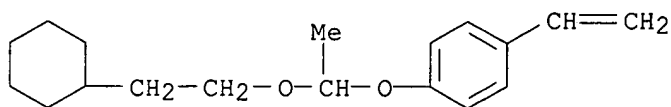
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

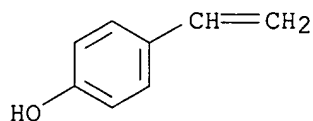
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 4 OF 15 USPATFULL on STN

AN 2004:7280 USPATFULL

TI **Resist** composition

IN Takahashi, Hyou, Shizuoka, JAPAN

Yasunami, Shoichiro, Shizuoka, JAPAN

Mizutani, Kazuyoshi, Shizuoka, JAPAN

PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

PI US 2004005513 A1 20040108

US 7083892 B2 20060801

AI US 2003-606845 A1 20030627 (10)

PRAI JP 2002-190581 20020628

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<--

DT Utility

FS APPLICATION

LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC, 20037

CLMN Number of Claims: 21

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1759

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The **resist** composition of the present invention, ensuring excellent pattern profile and excellent isolation performance for use in the pattern formation by the irradiation of actinic rays or radiation, particularly, electron beam, X ray or EUV light, which comprising (A) a compound having a specific partial structure and a counter ion, the

compound generating an acid upon irradiation of actinic rays or radiation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3

(acid decomposable resin; resist composition showing excellent pattern profile and isolation performance)

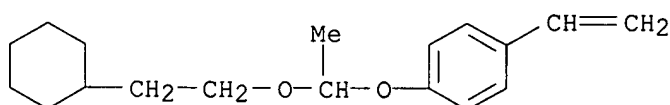
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

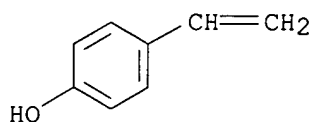
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 5 OF 15 USPATFULL on STN
 AN 2003:314543 USPATFULL
 TI **Resist** composition
 IN Urano, Fumiyoshi, Kawagoe, JAPAN
 Fujie, Hirotooshi, Kawagoe, JAPAN
 Takeyama, Naoki, Settsu, JAPAN
 Ichikawa, Koji, Ashiya, JAPAN
 PA Sumitomo Chemical Company, Limited, Osaka, JAPAN (non-U.S. corporation)
 PI US 6656660 B1 20031202 <--
 AI US 2000-492389 20000127 (9) <--
 PRAI JP 1999-20450 19990128 <--
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Baxter, Janet; Assistant Examiner: Thornton, Yvette C.
 LREP Armstrong, Westerman & Hattori, LLP
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN 9 Drawing Figure(s); 4 Drawing Page(s)
 LN.CNT 4019
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A **resist** composition comprising (a) at least two kinds of polymers which become alkali-soluble by the action of an acid, (b) as a photoacid generator, a combination of an alkylsulfonyl diazomethane

compound and a triarylsulfonium arylsulfonate compound or a diaryliodonium arylsulfonate compound, and (c) a solvent is excellent as a chemically amplified **resist** composition to give excellent pattern shape and very fine line-and-space, particularly when exposed to lights having a wavelength of 300 nm or less.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 192314-56-0P

(preparation of polymer for photoresist composition for KrF laser and UV light exposure)

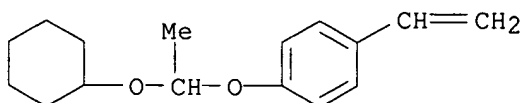
RN 192314-56-0 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene and 1-(1,1-dimethylethoxy)-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

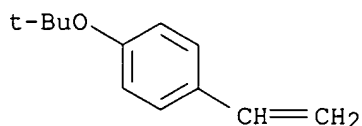
CMF C16 H22 O2



CM 2

CRN 95418-58-9

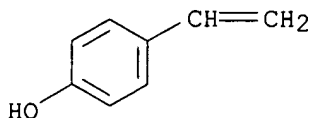
CMF C12 H16 O



CM 3

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 6 OF 15 USPATFULL on STN

AN 2003:194414 USPATFULL

TI Positive **resist** composition

IN Fujimori, Toru, Shizuoka, JAPAN

Kawabe, Yasumasa, Shizuoka, JAPAN
 PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)
 PI US 2003134225 A1 20030717 <--
 AI US 2002-244070 A1 20020916 (10) <--
 PRAI JP 2001-285180 20010919 <--
 JP 2002-563 20020107 <--
 DT Utility
 FS APPLICATION
 LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC,
 20037
 CLMN Number of Claims: 13
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 2741
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A positive **resist** composition comprising the components of:
 (A) a compound capable of generating an acid upon irradiation with one
 of an actinic ray and a radiation; (B) a resin that is insoluble or
 slightly soluble in alkalis, but becomes alkali-soluble under an action
 of an acid; (C) a basic compound; and (D) a compound comprising at least
 three hydroxyl groups or at least three substituted hydroxyl groups, and
 comprising at least one cyclic structure.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **288620-13-3P**

(pos. photoresist composition containing)

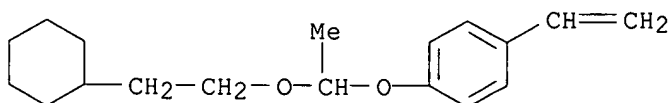
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-
 ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

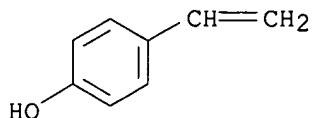
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 7 OF 15 USPATFULL on STN

AN 2003:110990 USPATFULL

TI Positive radiation-sensitive composition

IN Kodama, Kunihiro, Shizuoka, JAPAN

PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)
 PI US 2003075708 A1 20030424 <--
 US 6733951 B2 20040511
 AI US 2002-144536 A1 20020514 (10) <--
 PRAI JP 2001-148006 20010517 <--
 DT Utility
 FS APPLICATION
 LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC,
 20037
 CLMN Number of Claims: 14
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1784
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A positive radiation-sensitive composition comprising:

(A) at least one compound capable of generating an acid upon irradiation with an actinic ray represented by the following formula (I); and

(B) a resin having a group capable of decomposing by the action of an acid to increase the solubility in an alkali developing solution:
 ##STR1##

wherein R.sub.1, R.sub.2, R.sub.3, R.sub.4 and R.sub.5 each represents a hydrogen atom, an alkyl group, an alkoxyl group, a nitro group, a halogen atom, an alkyloxycarbonyl group, or an aryl group, and at least two of R.sub.1, R.sub.2, R.sub.3, R.sub.4 and R.sub.5 may be bonded to form a cyclic structure; R.sub.6 and R.sub.7 each represents a hydrogen atom, an alkyl group, a cyano group or an aryl group; Y.sub.1 and Y.sub.2 each represents an alkyl group, an aryl group, an aralkyl group, or an aromatic group containing a hetero atom, and Y.sub.1 and Y.sub.2 may be bonded to form a ring; Y.sub.3 represents a single bond or a divalent linking group; and X.sup.- represents a non-nucleophilic anion; provided that at least one of R.sub.1, R.sub.2, R.sub.3, R.sub.4 and R.sub.5, and at least one of Y.sub.1 and Y.sub.2 are bonded to form a ring, or at least one of R.sub.1, R.sub.2, R.sub.3, R.sub.4 and R.sub.5, and at least one of R.sub.6 and R.sub.7 are bonded to form a ring; and there may be present two or more structures represented by formula (I) by being bonded at any position of R.sub.1 to R.sub.7 or at any position of Y.sub.1 and Y.sub.2 via a linking group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3

(base polymer; chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)

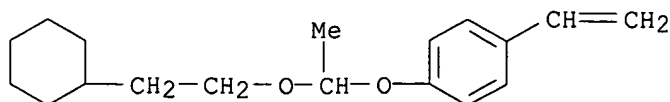
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

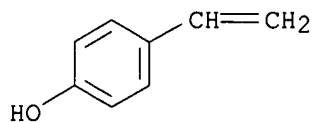
CRN 288620-12-2

CMF C18 H26 O2



CM 2

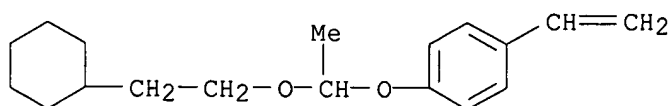
CRN 2628-17-3
CMF C8 H8 O



L95 ANSWER 8 OF 15 USPATFULL on STN
 AN 2003:78367 USPATFULL
 TI **Resist** composition
 IN Yasunami, Shoichiro, Shizuoka, JAPAN
 Nishiyama, Fumiyuki, Shizuoka, JAPAN
 Momota, Makoto, Shizuoka, JAPAN
 Kawamura, Koichi, Shizuoka, JAPAN
 PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)
 PI US 2003054287 A1 20030320 <--
 AI US 2002-120551 A1 20020412 (10) <--
 PRAI JP 2001-115596 20010413 <--
 JP 2001-169770 20010605 <--
 JP 2001-254879 20010824 <--
 DT Utility
 FS APPLICATION
 LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC,
 20037
 CLMN Number of Claims: 19
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 2435
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A **resist** composition containing a compound generating an acid
 by irradiation of an active ray or radiation and having a sulfonimide
 structure represented by formula (I) defined in the specification, which
 is excellent in sensitivity, resolution, pattern profile and edge
 roughness.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 IT **288620-13-3P**
 (resin; pos.-working radiation-sensitive resist composition for
 semiconductor device fabrication according process such as electron
 lithog.)
 RN 288620-13-3 USPATFULL
 CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-
 ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

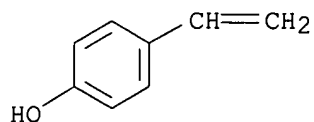
CRN 288620-12-2
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 9 OF 15 USPATFULL on STN

AN 2002:112473 USPATFULL

TI Positive **resist** composition

IN Uenishi, Kazuya, Shizuoka, JAPAN

PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

PI US 2002058206 A1 20020516 <--

AI US 2001-945747 A1 20010905 (9) <--

PRAI JP 2000-270158 20000906 <--

JP 2000-290563 20000925 <--

DT Utility

FS APPLICATION

LREP SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue,
N.W., Washington, DC, 20037

CLMN Number of Claims: 16

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2238

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A positive electron composition comprises: (a) a compound capable of generating an acid upon irradiation with a radiation; (b) a compound having a cationically polymerizable function; and (c) a solvent mixture containing at least one solvent selected from Group (A) below, and at least one solvent selected from Group (B) and Group (C):

Group A: a propylene glycol monoalkyl ether carboxylate;

Group B: a propylene glycol monoalkyl ether; an alkyl lactate, an acetic ester, a chain ketone and an alkyl alkoxypropionate; and

Group C: a γ -butyrolactone, an ethylene carbonate and a propylene carbonate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 288620-13-3

(binder; electron beam and x-ray pos. resist composition containing)

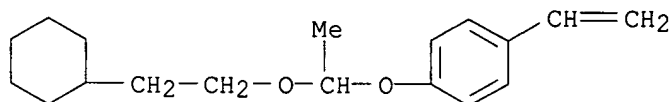
RN 288620-13-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(2-cyclohexylethoxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 288620-12-2

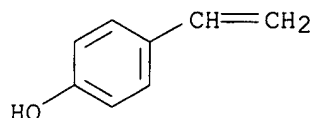
CMF C18 H26 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 10 OF 15 USPATFULL on STN
 AN 2002:78364 USPATFULL
 TI Chemically amplified positive **resist** composition
 IN Hatakeyama, Jun, Nakakubiki-gun, JAPAN
 PA Shin-Etsu Chemical Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
 PI US 2002042017 A1 20020411 <--
 US 6869744 B2 20050322
 AI US 2001-907653 A1 20010719 (9) <--
 PRAI JP 2000-218490 20000719 <--
 DT Utility
 FS APPLICATION
 LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE
 1400, ARLINGTON, VA, 22201
 CLMN Number of Claims: 6
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1321
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A chemically amplified positive **resist** composition contains as
 a base a carboxyl or phenolic hydroxyl group-containing resin soluble in
 aqueous alkaline solution, in which acid labile groups are incorporated
 into at least some of the hydrogen atoms on the carboxyl or phenolic
 hydroxyl groups so that the resin becomes insoluble or substantially
 insoluble in alkali, wherein the resin contains acid labile groups of at
 least two types, acid labile groups of one type are acetal or ketal
 groups, and acid labile groups of the other type are tertiary
 hydrocarbon groups or tertiary hydrocarbon group-containing
 substituents. The **resist** composition remains stable during
 vacuum standing after exposure to electron beams or soft x-rays, leaves
 minimal footings on chromium substrates, has an excellent sensitivity
 and resolution, and is thus suited as a micropatterning material for use
 in the processing of mask substrates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 199432-81-0

(chemical amplification pos. working resist material).

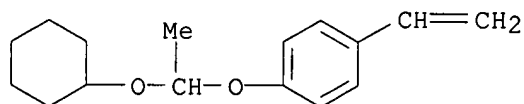
RN 199432-81-0 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

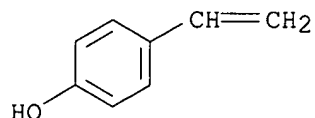
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 11 OF 15 USPATFULL on STN

AN 2001:199869 USPATFULL

TI Chemical amplification, positive **resist** compositions

IN Ohsawa, Youichi, Nakakubiki-gun, Japan

Watanabe, Jun, Nakakubiki-gun, Japan

Takeda, Takanobu, Nakakubiki-gun, Japan

Seki, Akihiro, Nakakubiki-gun, Japan

PI US 2001038971 A1 20011108 <--

US 6682869 B2 20040127

AI US 2001-799052 A1 20010306 (9) <--

PRAI JP 2000-61350 20000307 <--

DT Utility

FS APPLICATION

LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington Courthouse Plaza I, Suite 1400, 2200 Clarendon Boulevard, Arlington, VA, 22201

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2083

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplification, positive **resist** composition is provided comprising (A) a photoacid generator and (B) a resin which changes its solubility in an alkali developer under the action of acid and has substituents of the formula: Ph--(CH₂)_nOCH(CH₂)₂CH₂ where Ph is phenyl and n=1 or 2. The composition has many advantages including improved focal latitude, improved resolution, minimized line width variation or shape degradation even on long-term PED, minimized defect left after coating, development and stripping, and

improved pattern profile after development and is suited for microfabrication by any lithography, especially deep UV lithography.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 362479-00-3D, 1,4-Butane diol divinyl ether-p-hydroxystyrene copolymer, 1-phenethyloxypropyl derivs.

(chemical amplified pos. resist compns. with improved resolution, pattern profile and focal latitude for deep UV lithog.)

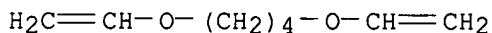
RN 362479-00-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

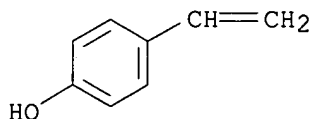
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 12 OF 15 USPATFULL on STN

AN 2001:192882 USPATFULL

TI Chemically amplified positive **resist** composition and patterning method

IN Takeda, Takanobu, Niigata-ken, Japan

Watanabe, Jun, Niigata-ken, Japan

Takemura, Katsuya, Niigata-ken, Japan

Koizumi, Kenji, Niigata-ken, Japan

PA Shin-Etsu Chemical Co., Ltd., Chiyoda-ku, Japan (non-U.S. corporation)

PI US 2001035394 A1 20011101 <--

US 6593056 B2 20030715

AI US 2001-814049 A1 20010322 (9) <--

PRAI JP 2000-79414 20000322 <--

DT Utility

FS APPLICATION

LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 2 Drawing Page(s)

LN.CNT 2498

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemically amplified, positive **resist** composition comprising an organic solvent, a polymer having acid labile groups, a photoacid generator, a basic compound, and a compound containing at least two

allyloxy groups is provided. The **resist** composition has a high sensitivity, resolution, dry etching **resistance** and process adaptability, and is improved in the slimming of a pattern film after development with an aqueous base solution. The **resist** composition is also applicable to the thermal flow process suited for forming a microsize contact hole pattern for the fabrication of VLSI.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 362479-00-3D, ethoxypropyl ether or ethoxyethyl ether

(chemical amplified pos. resist composition containing)

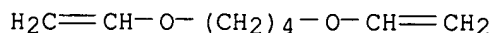
RN 362479-00-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

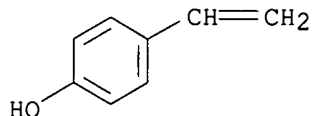
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 13 OF 15 USPATFULL on STN

AN 2001:188362 USPATFULL

TI Chemical amplification, positive **resist** compositions

IN Ohsawa, Youichi, Nakakubiki-gun, Japan

Watanabe, Jun, Nakakubiki-gun, Japan

Takeda, Takanobu, Nakakubiki-gun, Japan

Seki, Akihiro, Nakakubiki-gun, Japan

PI US 2001033994 A1 20011025

US 6838224 B2 20050104

AI US 2001-799009 A1 20010306 (9)

PRAI JP 2000-61357 20000307

DT Utility

FS APPLICATION

LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington Courthouse Plaza 1, Suite 1400, 2200 Clarendon Boulevard, Arlington, VA, 22201

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2076

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplification, positive **resist** composition is provided comprising (A) a photoacid generator and (B) a resin which changes its solubility in an alkali developer under the action of acid

and has substituents of the formula: C.sub.6H.sub.11--
(CH.sub.2).sub.nOCH(CH.sub.2CH.sub.3)-- wherein C.sub.6H.sub.11 is
cyclohexyl and n=0 or 1. The composition has many advantages including
improved focal latitude, improved resolution, minimized line width
variation or shape degradation even on long-term PED, minimized defect
left after coating, development and stripping, and improved pattern
profile after development and is suited for microfabrication by any
lithography, especially deep UV lithography.

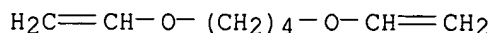
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 362479-00-3D, 1,4-Butane diol divinyl ether-p-hydroxystyrene
copolymer, cyclohexylmethoxypropyl derivs.
(chemical amplified pos. resist comps. with improved resolution, pattern
profile and focal latitude for deep UV lithog.)
RN 362479-00-3 USPATFULL
CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA
INDEX NAME)

CM 1

CRN 3891-33-6

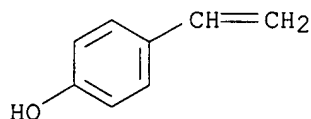
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 14 OF 15 USPATFULL on STN

AN 2001:182263 USPATFULL

TI Chemical amplification **resist** compositions

IN Takeda, Takanobu, Nakakubiki-gun, Japan

Watanabe, Osamu, Nakakubiki-gun, Japan

Hirahara, Kazuhiro, Nakakubiki-gun, Japan

Takemura, Katsuya, Nakakubiki-gun, Japan

Kusaki, Wataru, Nakakubiki-gun, Japan

Seki, Akihiro, Nakakubiki-gun, Japan

PI US 2001031421 A1 20011018

US 6737214 B2 20040518

AI US 2001-800512 A1 20010308 (9)

PRAI JP 2000-64277 20000309

DT Utility

FS APPLICATION

LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Suite 1400, Arlington Courthouse
Plaza, 2200 Clarendon Boulevard, Arlington, VA, 22201

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

✓ <--

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DRWN No Drawings

LN.CNT 942

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplification positive **resist** composition comprising a polymeric mixture of a polyhydroxystyrene derivative having a Mw of 1000-500,000 and a copolymer of hydroxystyrene and (meth)acrylate having a Mw of 1000-500,000, as a base resin, has improved dry etching **resistance**, high sensitivity, high resolution, and process adaptability, and is suppressed in the slimming of pattern films after development with aqueous base.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **362479-00-3D**, 1,4-Butanediol divinyl ether-p-hydroxystyrene copolymer, ethoxyethyl ether
(chemical amplification resist compns. containing)

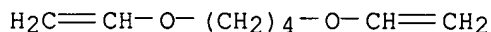
RN 362479-00-3 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1,4-bis(ethenyloxy)butane (9CI) (CA INDEX NAME)

CM 1

CRN 3891-33-6

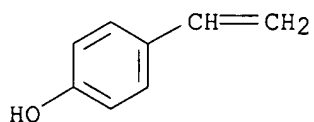
CMF C8 H14 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



L95 ANSWER 15 OF 15 USPATFULL on STN

AN 1999:43351 USPATFULL

TI Positive working photosensitive composition

IN Kodama, Kunihiro, Shizuoka, Japan

Aoi, Toshiaki, Shizuoka, Japan

Uenishi, Kazuya, Shizuoka, Japan

PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

PI US 5891603 19990406 <--

AI US 1997-840629 19970425 (8) <--

PRAI JP 1996-105635 19960425 <--

JP 1996-171327 19960701 <--

JP 1997-101924 19970418 <--

DT Utility

FS Granted

EXNAM Primary Examiner: Chu, John S.

LREP Sughrue, Mion, Zinn Macpeak & Seas, PLLC

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1641

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided is a positive working photosensitive composition comprising (a) a compound represented by the following formula (I) which generates a sulfonic acid by irradiation with active rays or radiation, and (b) a resin comprising constitutional repeating units of the following formulae (II) and (III) and having groups which enable an increase of the solubility in an alkali developer through their decomposition due to the action of an acid: ##STR1## wherein Y represents an alkyl group, an aralkyl group, or a specific phenyl, naphthyl or anthracenyl group and Y may be bonded to the other imidesulfonate compound residue; and X represents an alkylene group, an alkenylene group, an arylene group, or an aralkylene group, and X may be bonded to the other imidesulfonate compound residue: ##STR2## wherein R.sub.22 represents a hydrogen atom, an alkyl group, or an aralkyl group; and A represents an alkyl group or an aralkyl group, and A may combine with R.sub.22 to complete a 5- or 6-membered ring.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 199432-81-0P, p-(1-Cyclohexyloxyethoxy)styrene-p-hydroxystyrene copolymer

(preparation and use in pos. photoresists containing oxime sulfonate photoacid generators)

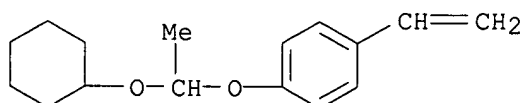
RN 199432-81-0 USPATFULL

CN Phenol, 4-ethenyl-, polymer with 1-[1-(cyclohexyloxy)ethoxy]-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 190434-67-4

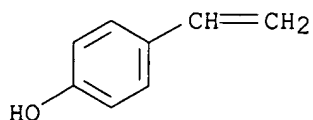
CMF C16 H22 O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



=> d his

(FILE 'HOME' ENTERED AT 11:56:17 ON 11 SEP 2006)
SET COST OFF

jan delaval - 11 september 2006